ELEMENTARY ECONOMICS

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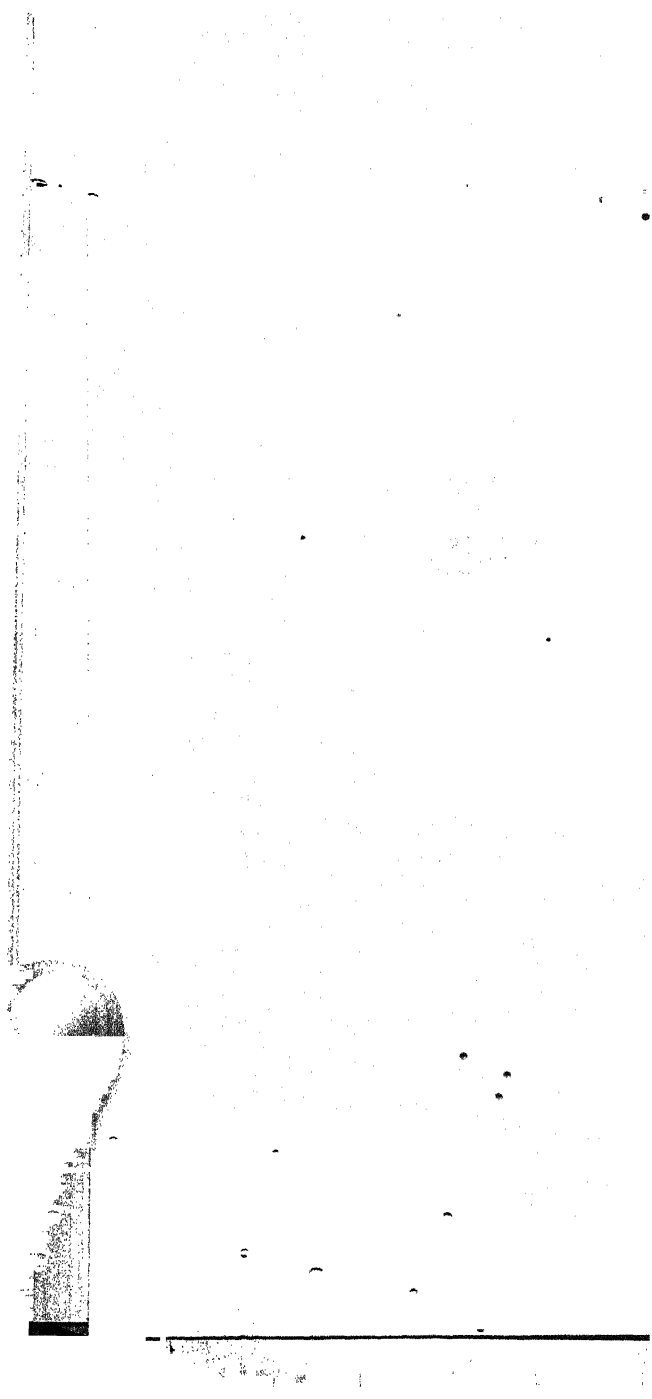

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ELEMENTARY ECONOMICS

CHAPTER I

INTRODUCTORY

Nature and Importance of Economics.—'Political Economy,' according to its derivation from three Greek words, means the law of household management applied to communities. It is very often called Economics for short. More directly, it may be defined as *the study of the making, exchanging, sharing, and using of wealth.*

The first great treatise on Economics in English was written by Adam Smith (a professor in the University of Glasgow) and published in 1776. It was entitled the *Wealth of Nations.* Almost immediately it began to exert a wide influence. The science so comprehensively expounded by Adam Smith has naturally developed almost beyond recognition since his time. And, since his time, its study has grown in importance, because business became increasingly complicated after

the Industrial Revolution, which took place at the end of the eighteenth and the beginning of the nineteenth centuries.

By the 'Industrial Revolution' is meant the changes brought about by a number of mechanical and other inventions, and the application of steam-power to production and transportation. These changes did not, of course, come in their completeness quite suddenly; indeed, many of them began as far back as the seventeenth and even the sixteenth centuries. But they were so great and so numerous, and took place so rapidly, at the end of the eighteenth century and the beginning of the nineteenth, that they may be thought of as making together a revolution.

These changes meant the destruction of the domestic system of manufacture, under which people produced goods in their homes, or workshops attached to their homes, with the aid of a few simple appliances. For these conditions the larger-scale factory system and the extensive use of machinery were generally substituted. Moreover, railways and steamships appeared, with the result that the amount of trade between distant places was enormously increased. So, in view of the complexities of large-scale production and the ramifications of a vast and world-wide commerce, the systematic study of industry and commerce,

in what is known as economics, has become even more requisite than it used to be.

Wealth.—Economics has been defined above as the study of the making, exchanging, sharing, and using of wealth. To complete this definition, it is now necessary to define 'wealth.'

Everything that people want is not wealth in the economic sense. *Wealth is what people want to satisfy their needs directly, or indirectly, and have to spend time and effort in getting.* The air that we breathe on the surface of the earth is not wealth, because it is a free gift of nature. But the wheat which the farmer gets from the land with the sweat of his brow is wealth. So is the coal raised from mines. So are clothes and furniture and machinery, which men manufacture.

Economics does not assume that most people selfishly seek wealth. Nor does it advise them to do so. It simply takes people as they are and treats of the effect of their actions with reference to wealth. Few people work only for themselves. Most people work as much for the comfort of their families as for their own, or even more for the comfort of their families; and some people work for philanthropic reasons. Again, it is worth noticing that a man may labour very hard, not for money at all, but for success, or for the sake of achieving something. Money may come to him

as counters come to those who are successful in a game of skill for counters. But those who play games for counters are not mastered by a passion for counters.

Questions (with Hints for Solution)

1. *Describe the study known as Political Economy, and consider its value.*

In the answer to this question, what is meant by wealth should be incidentally explained, as Political Economy is a social study which has reference to wealth. It should also be pointed out that the selfish pursuit of wealth is neither assumed nor recommended. It would be desirable to write a lengthy essay on this subject after finishing the book, when the student will have a more detailed knowledge of what the scope and method of Political Economy is.

2. *Explain the causes and consequences of the so-called Industrial Revolution, and account for the use of the term 'Revolution.'*

This question might be attempted again after the first six chapters have been read, as one of the consequences of the Industrial Revolution consisted in the greater division of labour and use of machinery rendered possible by the Factory System.

CHAPTER II

UTILITY AND DEMAND

Utility or Value in Use.—When we use wealth we are said to consume it. As we consume it, we are said to derive utility from it. Wealth is the substance of which utility, or value in use, as it is sometimes called, is the attribute.

The goods (including services) making up the wealth of the world may be divided into (1) those which are wanted for themselves, and so yield utility directly, and (2) those which are not wanted for themselves, and so yield utility only indirectly. Of the first class are clothes, furniture, food, and so forth. Of the second class are machines, factories, cooking-utensils, and all instrumental goods, as they may be called. The goods of the second class (*indirect goods*) derive their utility from the utility of the goods of the first class (*direct goods*) which they aid us in procuring. Thus it is the utility of clean boots which makes the utility of the boot-brushes which clean the boots. Of

course, the utility of indirect goods is dependent upon their effectiveness as aids to getting direct goods.

Value in use, or utility, must not be confounded with value in exchange, which means what a thing will exchange for. And it must be clearly understood that value in use in economics does not refer to the estimation in which things ought to be held, but merely to the estimation in which they are actually held. Things with a high actual value in use might be worthless, or even harmful, from a moral point of view. And just as the utility (or value in use) of a thing as it is must not be confounded with what it ought to be, so what is regarded as wealth must not be confounded with what ought to be regarded as wealth.

With a view to social progress, it is important to consider what we ought to regard as wealth. But to consider this is the province of what is called ethics. Economics is only concerned with what people actually regard as wealth at present. Many people even now take the right view; and more people will take the right view as we advance in morals and culture.

Total and Marginal Utility.—Attention being confined to the utility of things as it is conceived to be, apart from what it ought to be, the important distinction between the total utility of a thing to

anybody and its marginal utility to him must be drawn. The *total utility* means all the utility that he gets out of it. The *marginal utility*, on the other hand, means *the addition made by the last increment of the thing to the utility previously obtained.* Thus the total utility of chairs in my house means the whole of the utility that I gain from having the chairs, of which, suppose, there are a dozen. But the marginal utility means the addition of utility brought by the final one of the dozen chairs. Or, put in another way, it means the utility that I should lose in being deprived of one of the dozen chairs.

The Law of Diminishing Utility.—When the reader has fully grasped the relation between total utility and marginal utility, he or she will be capable of understanding without difficulty the celebrated law of diminishing utility. *The so-called law of diminishing utility declares that, in almost all cases, the more we have of a thing (beyond a limited amount) the less we want still more of it, for the time being.* We become indifferent to chocolate, for example, as we eat more and more of it without a break. The sweeping statement—or generalisation, as it is called technically—which covers this example and others, and says broadly that the more we have of a thing the less we want it, is called a law because it is true with but few exceptions.

More precisely, the law of diminishing utility affirms that, the more we consume of a thing, the less becomes its marginal utility to us; though the total utility of the larger amount to us will exceed the total utility of the smaller amount. Thus the marginal utility of coal will be higher to a person if he buys two tons a year than if he buys four tons a year. But, nevertheless, the total utility of four tons will be greater to him than the total utility of two tons.

Of course, when a thing is absolutely necessary for existence, the utility to any person of such an amount as is requisite to keep him alive is infinite. The initial utility (as we may call it) of water is infinite because we cannot live at all without some water. But the utility of additional supplies of water, over and above what is strictly necessary, is, nevertheless, limited.

It should further be observed that, after we have acquired very large supplies of any particular commodity, its marginal utility generally drops to nothing at all: and then we want no more of it. A person who has fed to satiety would gain no additional satisfaction from eating any more. On the contrary, were he forced to go on eating against his will, he would experience dissatisfaction, that is to say he would get disutility, instead of utility.

It can be shown that indirect goods are subject to diminishing utility as well as direct goods. This has already been suggested by the example of coal taken above, since fires are used for cooking as well as for warmth. Again, consider kitchen utensils. We soon get more kitchen utensils than we really need if we go on buying them without regard to our requirements.

Demand.—*Demand means the offer of money for things. It expresses the prices which will be paid for different quantities of things.*

We have learnt that the more we have of a thing the less we want still more of it; and that this truth is called the law of diminishing utility. Now we have to realise that, in consequence of this, the more we have of a thing the less will we pay for still more of it. If, for instance, I bought 1 lb. of tea a month when the price was 2*s.* a pound, the price would have to be lower than 2*s.* a pound to induce me to buy more than 1 lb. a month.

Market demand is the sum of the demands of all individuals buying in the market. It refers to the quantities of any purchasable thing which will be bought at different prices. The reader will apprehend at once that the market demand price for a large supply must be less than the market demand price for a small supply. This is so (1) because a fall in price is necessary to make any given person

increase his purchase, and (2) because people who are too poor to buy at a high price may be able to buy at a low price.

Questions (with Hints for Solution)

1. *Define 'total utility' and 'marginal utility,' and point out the relation between them.*

Incidentally, the distinction between the utility that things have for us and the utility that they ought to have should be noted. Economics deals primarily with the former.

2. *Explain why it is that a fall in the price of a commodity is followed by increased sales, as a rule.*

It should be pointed out that market demand is compounded of individual demands; and that, in the case of every person, a larger quantity will only be bought at a price lower than that offered for a smaller quantity, because of the law of diminishing utility. The law of diminishing utility should be precisely enunciated. Another fact to mention is that many people who cannot buy at all at a high price find it possible to buy at a low price.

CHAPTER III

THE LAW OF SUBSTITUTION AND STANDARDS OF LIVING

The Law of Substitution or of Equi-marginal Returns.—There is an important law applying to the spending of income, and, as we shall see later, to other matters also. It is called the law of substitution or of equi-marginal returns. *With reference to spending, it declares that each of us will tend to buy different things in such relative quantities that their marginal utilities are made the same (when the different things are taken in units of equal cost, for instance, in pennyworths or shillingworths).*

The truth of the law is easily proved. If I could get more utility by spending another penny a week on sugar than I should lose by spending a penny a week less on cake, I would obviously decide to spend less on cake and more on sugar. And I should continue economising on cake and being lavish with sugar until I ceased to reap a gain from so doing—that is until the marginal utility of

pennyworths of sugar equalled the marginal utility of pennyworths of cake. Now, what is true of expenditure on these two articles must be true of expenditure generally. So the truth of the law of substitution, with reference to the laying out of income, is demonstrated.

Another illustration of the law of substitution, or equi-marginal returns, may be taken from the uses to which we put our supplies of anything, when they can be put to more than one use. A housewife, suppose, has a certain supply of calico. Some of it she will make into sheets, let us imagine, some into aprons, and so on. The amount that she will tend to apply to each purpose will be such that the marginal utility of the calico when devoted to any one purpose equals its marginal utility when devoted to any other.

We are not, of course, compelled to dispose of our means according to the so-called law of substitution. But, as a matter of fact, most of us will try to do so, because we are reasonable beings and want to get as much satisfaction as we can out of our incomes. It goes without saying, however, that equi-marginal returns of utility are only very roughly attained by most people. Many do not realize how much is to be gained by wise expenditure; many spend as they get without thinking; and all of us are apt to make mistakes.

Also it goes without saying that we do not trouble to bring about equi-marginal returns in buying things that are very cheap. Most well-to-do people will consume as much salt as they want to—that is to say, will consume it until its marginal utility drops to nothing. We only think of limiting our expenditure on a thing when it is comparatively expensive, so that by economising in using it we can save a sum of money which is appreciable. It is seldom worth while taking much trouble with a view to saving a penny a month on salt. But it is always worth while taking a great deal of trouble with a view to saving from comparatively profitless expenditure sums which are appreciable.

The process by which equi-marginal returns is brought about is called the process of substitution—hence the name 'law of substitution.' The process is called substitution because it is by substituting the more profitable for the less profitable employment of money, or goods, that equi-marginal returns are brought about.

The law of substitution in economics is very like the law of survival of the fittest in biology. What is fittest, in view of its cost, to satisfy our needs tends to survive in demand—that is, to be demanded to the exclusion of what is less fit for our purposes.

The process of substitution operates in all economic activities, and not merely in demand. For example, as we shall learn later, the producer, in spending on different agents for production, is guided in exactly the same fashion as the consumer in spending his income. Again, in saving money, we all have in mind the relation between its present utility and what its utility will be to us in the future.

Habit and Standards of Living.—All of us wish to make the most of our incomes, and we can do so by substituting more profitable for less profitable expenditure. Nevertheless, we do not actually make very frequent changes in the disposal of our incomes, because we are more or less creatures of habit. And it is advantageous that habit should be allowed to settle many of the little problems of life for us—to save time and effort. The housekeeper would never have a moment for anything else if she had to think out her weekly expenditure anew every week. But we all run the risk of getting so thickly encrusted with habits that the development of our tastes is impeded. It is supremely important to keep our habits in check, while leaving them efficient enough to save us the worry of thinking out expenditure a hundred times unnecessarily.

The habitual expenditure of each person makes up what is called his *standard of life*. People will

struggle hard to keep up their standards of living, because of their self-esteem, and because it is painful to break habits which are firmly set.

We can also speak, with some degree of truth, of the standard of life of a class. It refers to the habits, as regards expenditure, which are common to the members of the class. Most of them will tend to spend in pretty much the same way. Any two families of the same size with the same wage, if they work at the same trade in the same locality, will usually live pretty much the same lives. Broadly speaking, they will dress similarly, spend the same amounts on rent and the same amounts on holidays, visit the same sorts of entertainment, reject the same food and despise the same things. The standards of life of classes are brought about by the social instinct of imitation. They stand for what is customary.

Questions (with Hints for Solution)

1. *Is it correct to term the so-called law of substitution a 'law,' seeing that people are not compelled to spend their incomes so as to realize equi-marginal returns?*

After stating what the law of substitution declares, the answer to this question should point out that Economics is primarily concerned, not with what people are compelled to do or ought to do, but with what they actually do.

2. *Indicate the part played by habit in the spending of income.*

This subject is dealt with in the last section of the chapter above, but the student might attempt to illustrate the treatment there from his own experience. The importance of revising habits should be noted, and at the same time the advantage of forming them.

CHAPTER IV

THE AGENTS IN PRODUCTION

The Nature of Production.—Producing refers to the making of utilities; but it may be conceived broadly or narrowly. Narrowly it includes at least :—

1. Obtaining from land or sea, rivers or lakes, things which grow—farming and rubber-planting, fishing and sealing, for instance.

2. Obtaining from the earth, air, or water, things which do not grow in the ordinary sense —coal-mining, diamond-seeking and salt-mining, getting power from the wind, and nitrates from the atmosphere. Some of the things obtained are taken from stores which can be used up ; while others are not.

3. The manufacturing or making-up of things.

When the term 'producing' is used more broadly, we must add to these activities some or all of the following :

4. Transporting things.

5. Arranging for the distribution of things—that is commercial or trading work.

6. The direct furnishing of services to consumers—for instance, domestic service, singing and play-acting.

For the production of concrete things, something else besides labour is essential. The something else may be an indirect good which has previously been produced. Thus, to make boots, labour and leather are essential. But to get indirect goods, natural resources must have been drawn upon at some stage. So the absolutely indispensable agents, in the production of concrete things, are labour and natural resources.

Natural Resources.—Natural resources may be understood broadly to cover all the things in nature external to man; but they are sometimes referred to simply as 'land,' for the sake of brevity.

The variety, and the quantity and quality, of a country's natural resources are of great importance to it. A climate which ideally fosters crops, without enervating human beings, fertile land and stores of coal and ore, and water-power and fisheries, are endowments secondary only in worth to a sturdy and gifted population.

And just as a country's natural resources are of consequence, so is their accessibility. So also are a country's geographical circumstances relating

to facilities of transportation, immunity from catastrophies having a natural origin (such as earthquakes and floods), and security from foreign aggressions.

Efficiency of Labour.—It has been said above that the absolutely indispensable agents for producing tangible things are labour and natural resources. But there are other agents besides, namely, capital (which will be defined soon) and organizing, which is really a kind of labour. When labour is distinguished from organizing, 'labour' means executive work and 'organizing' means the work of starting, arranging, and directing production.

Under primitive conditions the workman directs himself. A few workmen still direct themselves, even in advanced industrial communities; but, on the whole, modern industry is initiated and directed by other persons, called employers.

It is very important that labour should be efficient. To be efficient, work-people must be properly fed, clothed, and housed. And their work must not be excessive. Continuous toil beyond people's strength wears them out. And, whenever possible, monotony in work is to be avoided, even with a view merely to the quantity and quality of the output, since monotonous work destroys people's keenness. Gloomy surroundings and insanitary conditions are also to be avoided, if high

productivity is aimed at, because both breed listlessness, and the latter, at any rate, may help the generation of disease. Finally it is to be remarked that good education makes for efficiency.

Advanced governments have assumed the direction, and much of the financial burden, of education. It has been necessary for them to do so. For the cost of good education—from which the community gains enormously, when it is widespread—is beyond the means of a large section of the population. And much education, when left entirely to private enterprise, is apt to become inferior. Moreover, modern governments now compel people to be educated, at least up to a certain standard.

In matters of hygiene also, as well as in education, government has brought its influence and authority to bear. Such action has been desirable, because people are frequently careless about health, and the carelessness of one man may result in the ill-health of many. Again, in some countries, including the United Kingdom, government (both central and local) has given no small degree of attention to matters not strictly hygienic, but in a way related to hygiene, and has exerted itself generally to improve the housing of the working-classes and make urban conditions more agreeable. What the State has done, and as a rule done wisely, in these matters has both raised the productivity

of the community and been a direct good in rendering life more worth living.

Factory Legislation.—Besides interfering with individual liberty with reference to education, health and housing, Western Governments have adopted Factory Acts in the interests of labour.

In the United Kingdom, factory legislation (with a very limited scope) was initiated shortly after the factory system began to displace the domestic workshop. At first it related only to children. Their hours of work were curtailed; while the conditions of their work, in respect of safety from accidents as well as of health and comfort, were improved. The legislation was extended to women, who were similarly protected by regulations suited to their needs. Finally it was extended, in a limited degree, to men. In the particularly dangerous trades, special regulations are in force. For instance, the use of naked lights in coal mines is not allowed.

The necessity of specially protecting women and children was proved by experience. For many years, there was a terrible abuse of child labour, and in a lesser degree of women's labour. It was also found that, generally (through ignorance or callousness on the part of operatives or employers), conditions of work dangerous to life or limb, or ultimately damaging to the vigour of the population,

were apt to appear and spread under the unrestrained influence of competition.

Mobility of Labour.—The things produced in a community should be made to correspond, as closely as possible, with what is wanted. And our wants are constantly altering. So production is only kept appropriate when it is made responsive to changes in demand. It shows itself responsive to changes in demand when labour moves speedily to the places and trades where it is most wanted for the purposes dictated by demand. Hence the need of what are called *geographical mobility of labour* and *trade mobility of labour*.

When children tend to cling to their fathers' trades, without much regard to the relative demands for the things produced by different trades, trade mobility is said to be low. It is also said to be low when people are incapable of taking up new work. The geographical mobility of labour is said to be low when people require great inducements to make them move from one place to another.

Geographical and trade mobility of labour may be called *horizontal*, and contrasted with *vertical mobility*, which refers to the movement of individuals between the various grades of labour. When there is a high vertical mobility of labour, the able man rises easily to a position suited to his capacities. The higher every kind of mobility of labour

becomes, the greater becomes the national product in value.

Questions (with Hints for Solution)

1. *Comment on the distinction sometimes drawn between 'productive' and 'unproductive' labour.*

This question is not specifically treated in the chapter above, but it can be answered after some thought has been given to the contents of the first section. It should be shown that the answer depends, to some extent, upon whether we interpret 'production' broadly or narrowly. Productive labour, of course, means labour engaged in production. If 'production' is used in the broadest sense, to mean the making of any utilities, there can be no such a thing as unproductive labour, unless labour is mistakenly devoted to the making of what proves to have no utility. It should be remarked that services have utility as well as tangible things. It might also be added that the labour spent in making really worthless things, which are, nevertheless, wanted, may be deemed productive in the strict economic sense.

2. *Argue the case for the institution of Factory Acts, distinguishing between* (a) *the social reasons,* (b) *the economic reasons, for which they have been approved.*

The economic reasons have reference to the effect of Factory Acts on the productive efficiency of labour. But apart from these reasons, there are obviously humanitarian considerations (relating to people's comfort and happiness) which should also be taken into account.

3. *Discuss the following statement: 'That community produces most wealth which* (a) *has the richest natural resources and* (b) *is so organized that, on the whole, each person is doing the kind of work best suited to his capacities.'*

This question can be answered after the second and the last sections of the above chapter have been studied.

CHAPTER V

DIVISION OF LABOUR AND CAPITALISTIC PRODUCTION

The Economy of Division of Labour.—The productiveness of a group of labour may be considerably increased by the introduction of what is called *division of labour or specialization of labour.* This means limiting the number of tasks which each workman performs. If, in making boxes, one man planes the wood, while another cuts it into suitable pieces, and a third puts the pieces together, there is division of labour. If each man planes his wood, cuts it up, and puts the pieces together, there is no division of labour.

Division of labour is highly economical. The man who specializes becomes quick and expert. On the other hand, the man who undertakes many tasks never acquires expertness at any one. If he forms habits of working, they never become thoroughly ingrained. Usually he has to keep on thinking how to perform each operation; and, therefore, he works slowly and laboriously

When a person's early struggles to ride a bicycle are contrasted with his performances after he has formed the habit of riding, one of the chief economies of specialization will be fully realized. Again, the man who has many tasks assigned to him wastes time in passing from one to another.

Enough has been said to show that the productivity of labour should rise when labour is specialized. Moreover specialization of labour (that is, division of labour) may lead to inventions which cause further economy. The specialized workman is more likely to hit upon quick ways of doing things than the workman whose attention is diffused over many jobs.

But it is supremely important to realize that the productiveness of a method of production is not the sole test of its value. To get many commodities is not the one end of life. It might, in the best sense, pay a community to reject the most productive method of making something, because it rendered many workers' lives uncomfortable, or degraded human nature.

Effect of Specialization on Labour.—Does specialization degrade human nature? Adam Smith said that, in his day, a workman in a pin-factory made the eighteenth part of a pin. One of his critics commented that the man was made worth the eighteenth part of a pin in being confined to such a limited

task. Was the critic right? Not necessarily, though he may have been. We must not jump to the conclusion that all specialization, which limits the variety of a person's work, must be narrowing. It does not necessarily render work more mechanical. Intense interest in the specialized task may be aroused, when the operative has been educated to understand the principles underlying it, and to see it in relation to the great scheme of production, of which it is a part. The highly specialized expert may be more finely developed as a man than the Jack-of-all-trades.

In this connexion, moreover, it behoves us to bear in mind that any evil connected with division of labour may be temporary only. In so far as a particular task is mechanical, in the sense that it demands the constant repetition of some few simple movements, it becomes likely that a mechanical contrivance will ultimately be invented for its performance. Then a demand for trained intelligence takes the place of a demand for mere dexterity; and the person who was in effect a machine by reason of his dexterity gives place to a person who can understand and direct a mechanical process.

Before passing final judgment, from the point of view of the workman, on any kind of specialization, we must, of course, take its effect on wages into

account. As we shall learn in Chapter XX., wages should rise when the productivity of labour is increased.

Capital.—We have remarked that capital is one of the agents in production. It is a very important agent; and, under modern conditions, it is most extensively resorted to. We have now to consider what capital consists in, and what are its uses.

Capital consists in three classes of things :—

1. The stores of goods upon which people subsist while they are producing.

2. The material out of which things are made, such as leather and iron ore.

3. The factories in which production is carried on, and the machinery and implements with which it is aided.

Capital of the last class is called *fixed capital*, and capital of the first two classes is called *circulating capital*. Capital, it will be observed, implies both *productiveness* and *prospectiveness*. *It is wealth which aids in the production of wealth.*

All capital results from saving. When Robinson Crusoe wanted a plough, he had to begin by saving up a store of food to subsist on while he made it. And, under modern conditions, when a factory is built, somebody must have saved the money which is spent in building it.

The Effects of Substituting Machinery for Labour.—Why does it pay to use any engines, machinery, or implements at all? It pays for the following reasons:—

1. Many things could not be done at all, or could only be done with difficulty, without appliances. Large trees could not be felled without axes or saws; the seas could not be traversed without boats; and great weights could not be raised easily without pulleys.

2. The stupendous forces of nature can be pressed into the service of man when engines and machines exist. A vast amount of highly valuable work is now done for the performance of which the strength of the most powerful animals would be totally inadequate.

3. Machinery can work faster than human limbs can move.

4. Machinery works more accurately than the human being, because a machine repeats its movements exactly. Even the most dexterous operative cannot depend upon exactly repeating his movements. But just as some machine production is superior to hand-work, so some hand-work is superior—almost infinitely so—to machine work. The most pleasing pictures cannot be produced by machinery.

When the production of anything is made easier

by the introduction of labour-saving machinery, the labour saved can be used, and is used, to provide other goods, which could not be got before, because everybody who worked was fully occupied in producing what people then succeeded in getting.

For a time some operatives may lose employment when more productive methods are introduced, especially when they are introduced suddenly. But new inventions are only slowly adopted as a rule, though not invariably.

Many people object to power-driven machinery simply because they dislike its present consequences in the form of huge dreary towns, overhung with a pall of smoke. But these depressing consequences are removable. Smoke-consuming devices are becoming less costly ; and we are awakening to the possibility of making industrial towns beautiful. Moreover, it is constantly getting more economical to produce many things away from the very large towns.

Questions (with Hints for Solution)

1. *Comment upon the following statement: 'Excessive division of labour may be advantageous to others than workmen, but to the workman it cannot be beneficial, since it robs his work of interest and renders it wholly mechanical.'*

After dealing with the economies of division of labour,

the student should consider particularly whether the second part of this quotation is necessarily true, in all or most cases. He should, moreover, point out that any gain made by the workman in the form of higher wages must be set against any direct disadvantages associated with the division of labour. But the effect of division of labour on wages cannot be adequately dealt with until the chapters on Wages have been read; so this question should be marked for answer again later.

2. *Define Capital, and indicate* (a) *how it arises,* (b) *the part played by it in modern production.*

Before writing upon this question, it would be worth while to refer again to the mention in Chapter I. of the changes brought about by the Industrial Revolution.

CHAPTER VI

BUSINESS ORGANIZATION AND INCREASING AND DECREASING RETURNS

The Magnitude of a Business.—Most industries are carried on in a number of businesses, or firms, which compete with one another. In large industries, it never happens that one business or firm, by swelling out to enormous proportions, crowds out other businesses and devours the whole market. Up to a point a firm tends to grow in size, because the larger it becomes the more economically can it produce. But, beyond that point, further growth results in less economical production.

Let us try to picture in imagination the experiences of a growing business. For simplicity, suppose it produces one sort of article only. Take a village shoemaker who does all his work himself; and has no sewing-machine, because he could only work one for a few hours a week, and it would not pay to buy one for such a limited use. When this shoemaker's connexion grows a little, he engages an assistant, and

probably divides up the work to be done in such a way that both he and the assistant are specializing to some extent. Moreover, it might pay him then to acquire a sewing-machine, because it could be kept running, with the greater amount of work, many hours each week. So our shoemaker's cost of production would fall in consequence of division of labour and the application of machinery. And, as the business still grew, the possibility of lowering cost of production would continue, for a time at least. As our shoemaker introduced more assistants, he could specialize his labour more; and it would pay him to buy other kinds of machinery, say even a machine to sew on buttons, because there would be enough work to keep it running for a long time each working day.

Would there be any end to the growth of this business, if the shoemaker proved an exceedingly capable organizer, and could get all the capital he needed? Assuredly there would be. If a business never stopped growing, it would finally be too big for the employer to manage properly. Then cost of production in it would rise, and it would be beaten by competitors with lower costs of production.

Some employers, of course, can manage larger businesses than others. And in some industries the large business is more possible than in other industries. The very large business is most

manageable in industries in which productive processes are simple and need but little modification from time to time.

The Law of Substitution in Business.—The producer, whatever he is producing (whether wheat, or cutlery, or clothing), tries to get the biggest returns he can from a given expenditure on material or land, labour, instruments and accessories. Now, we have learnt that the consumer gets the most out of his income when he so spends it that his marginal returns from expenditure on different things are made equal. Similarly, the producer must get the best results when his marginal returns from expenditure on different agents of production are made equal. A producer's tendency to achieve equi-marginal returns in arranging his factors in production is another example of what is called the law of substitution, or, sometimes, the law of equi-marginal returns.

The producer brings about equi-marginal returns by substituting the more profitable for the less profitable expenditure. A manufacturer, say, is making steel. If he increases his staff of labourers so that his wages' bill is increased by 2*l.* a week, suppose his weekly product will be raised by one ton of steel. If he increases his capital to such an extent that 2*l.* a week is added to his interest account, suppose his weekly product will be raised

by two tons of steel. Then he will borrow more capital and possibly reduce his labour. And so he will tend to proceed until a unit of additional expenditure will have the same effect on his output whether it is spent on labour or capital.

But, naturally, in view of the magnitude of industrial undertakings and of the persistency of custom, equi-marginal returns are only very roughly attained.

The Laws of Decreasing and Increasing Returns.—We are now sufficiently equipped to understand the so-called laws of increasing and decreasing returns, which of all economic laws are two of the most celebrated.

The law of decreasing returns declares that, after a time, any attempt to add to the supplies of natural products will meet with less ample returns, in the absence of improvements in productive methods. Another way of stating the law is to say that, as we raise enlarged supplies of natural products, the cost of production of the additional supplies will increase.

The truth of the law can be readily shown by means of examples. When extra crops are needed, they can be got in either, or both, of the following ways: by spending more on the land already used (cultivating it more, intensively, as it is called), or by breaking up fresh soil. But, though we can

augment the harvest from a given plot of land, by spending more in working the plot of land, very soon an increase will be obtainable only at a disproportionate cost. And, though we can bring more land into cultivation, the new land brought into cultivation will be (*a*) either farther away from the market, since the most accessible land is naturally cultivated first, or (*b*) inferior in fertility, since the most fertile land known in the vicinity is naturally cultivated first. Consequently, cost of production (including the cost of carrying the produce to market) will be higher on the new land which comes into use than it was on the old land.

Another example may be taken from coal-mining. The most conveniently situated coal-measures are worked first. And, from each mine, the coal which is most accessible, and is most easily won, is got out first. So, at first, cost of production is lower than it tends to become.

As a matter of fact, however, we find that the cost of natural products falls from generation to generation, despite the raising of greater supplies of natural products as population grows. The reason for this is that new discoveries and inventions are made, from time to time, which more than counteract the tendency to decreasing returns.

The law of increasing returns affirms that an increase of the productive factors devoted to any

manufacture is usually accompanied, in the long run, by a more than proportionate return, meaning a lower cost of production. The reason for this is simple. When a manufacture gets larger, machinery can be more extensively resorted to, and labour and capital can be more thoroughly specialized, both in the manufacture in question and in the industries subsidiary to it.

Of course, the tendency to increasing returns may be counteracted in industries in which a large part of the cost of production consists in cost of material. For the production of the material may be subject to decreasing returns. Similarly, a tendency to decreasing returns, in raising natural products, may for a time be counteracted by the new economies which more extensive operations render possible. When there is neither increasing nor decreasing returns, we say there is *constant returns.*

Types of Business Organization.—Up to this point I have invariably spoken as if each business were managed by a single employer. We may now take account of the fact that it is not always so. A business may be a company or a co-operative organization.

A *company* is managed by a board of directors selected by the shareholders. The directors appoint a salaried manager, and delegate to him the responsibility of controlling the details of production.

The organization of companies, and the passing of laws facilitating their formation, have had most beneficial consequence, particularly the laws limiting the liability of shareholders. Through the existence of companies, more capital has been attracted into industry, and opportunities have been afforded to able men endowed with little or no wealth.

Co-operation in its simplest forms is of two kinds, productive and distributive. *Productive co-operation* means an association of workpeople formed with a view to producing. The members of the association borrow capital and elect their committee of management. *Labour co-partnership* is the term given to a mixture of productive co-operation and private, or company, enterprise. *Distributive co-operation* means an association of consumers for establishing shops at which the members deal, and thus secure for themselves trading profits. It has been applied both to retail and wholesale trade.

When the sole production of anything is in the hand of a single person or company, or when the producers of a thing are in agreement with one another (and so form a combination), instead of being in competition, monopoly is said to exist. *Monopolies* are of several kinds.

One kind of monopoly relates to natural products obtainable from a few sources only. Another kind has its basis in governmental action. Thus the sole

production of, or trade in, something used to be conferred by English sovereigns on favourites, or others, in reward for services. The practice was a reprehensible one. To-day the Government seldom confers monopoly rights. But there are important exceptions in the protection of inventions (in which case they are said to be *patented*) and of writings (in which case they are said to be *copyright*). Patents and copyrights hold only for a limited period. They are justified because, in their absence, the inducement to write, or publish, or invent, or take up an invention, would be paltry.

Of late years, the monopoly created by merging competing businesses in one company (called a *trust*), and the monopoly brought about by agreement between competitors to pursue a common policy as regards selling price (called a *Kartel*), have become common. The questions whether, and in what way, such monopolies can, or ought to be, prevented, and how any loss occasioned to the community in consequence of their existence can be checked, are being widely discussed—particularly in the United States, where the formation of a number of such monopolies has, of late, occasioned some alarm.

From these monopolies, and the others noticed above, the sort of monopoly, or semi-monopoly,

which arises naturally, in the provision of certain public services, must be distinguished. The provision of water and gas in towns, and of railway transportation throughout the country, furnish examples. Frequently it would not pay to have more than one railway company in a particular district. And it is obvious that it would never do to allow several competing gas or water companies to lay their pipes in the same streets.

Some of these *public service monopolies*, as we might call them, have been taken over by local authorities; and railways in some countries are owned and worked by the State. And, where the provision of such public services continues in private hands, some State control in the interests of consumers is usual. In England, for instance, the activities of railway companies, and their charges, are circumscribed by special legislation, and the public is safeguarded by the Railway Commission and the railway department of the Board of Trade.

Questions (with Hints for Solution)

1. *Illustrate the action of the law of substitution* (a) *in the spending of income,* (b) *in the organization of businesses.*

All that is required of the student is to make up some plausible illustrations like those given on pages 11 and 33.

2. '*Monopoly is unusual, but in certain circumstances it*

may be expected to appear, and may even prove beneficial.' Examine this assertion.

The first part of this quotation can be discussed after a careful perusal of the opening section of the above chapter. As regards the concluding part of the quotation, special attention should be given to Patents, Copyrights, and what have been called above Public Service Monopolies.

3. *Describe the various types of business organization which are to be found under modern conditions.*

CHAPTER VII

COMMERCIAL WORK AND TRADE DEPRESSIONS

Commercial Work.—For many purposes it is convenient to distinguish between the work involved in getting things from nature, or manufacturing articles from them when obtained, on the one hand, and the work of buying or marketing things, which may be called commercial or trading work, on the other hand.

People who engage exclusively in commercial work are variously designated as buyers, sellers, dealers, brokers, agents or travellers, according to their business, or the particular office which they discharge. But it must be remembered that many people combine the two offices of organizing an industrial business and of managing in detail the trading sides of the business. An 'industrial business' must be taken here to apply to mining, farming, and so forth, as well as to manufacturing.

Broadly speaking, commercial or trading work divides into two classes, (1) arranging purchases and

sales, and (2) giving a lead to production by anticipating demand, that is to say by framing estimates of future demand. Both classes of work are not necessarily done by the same people.

The nature of the services performed when purchases and sales are arranged, can easily be made plain with the aid of an illustration. Suppose there are three producers of steel, Smith, Jones, and Brown, and three people using steel, Johnson, Thompson, and Robinson. Johnson buys from Brown, let us imagine, at 30*s.* a ton, while Smith is ready to sell at 29*s.* a ton, though Johnson does not know it. Moreover, the quality of Smith's steel may more exactly suit Johnson's requirements than the quality of Brown's steel. One of the commercial man's tasks is to discover these facts, and secure that Johnson shall get more exactly what he wants, and get it at a more reasonable price than he would have to pay otherwise.

The other office performed by some commercial men (namely anticipating demand) is largely shared by producers proper. It consists in guessing (or, rather, in estimating) beforehand what people will want; so that things may be ready for them when they are ready for the things.

This anticipating is not a new thing necessitated by modern conditions. It is unavoidable under any conditions. Even savages must frame estimates

of their needs before they produce; and, in framing their estimates, they may make mistakes. Though Robinson Crusoe on his island, before man Friday came, had nobody to exchange things with, he could not escape the responsibility of anticipating needs, namely his own needs.

But, in the economy of advanced communities, anticipation plays a larger part. The organization of this anticipation has been one of the most remarkable features of recent economic development. In a modern community we expect to find our wants foreseen. This is the age of the 'ready-made' article. We may order our suits to measure, but we choose the cloth from stocks already accumulated and paraded for our inspection.

Merchants have been largely responsible for the character of these stocks. They have ordered from producers what they (the merchants) expect to be wanted. Those merchants whose expectations prove on the whole correct make profits. But those who have been unfortunate enough to prepare stocks of what proves not to be wanted incur losses. It is only the merchant with such a knowledge of the market, and such powers of observation and judgment, that he can foresee demand, who will make profits, and so find it worth while to do the work of anticipating.

Speculation.—When a man makes a guess about

future demand, or future prices, or the needs of people in regions far from his home, and acts on his guess, he is said to be speculating, the term being used very broadly. If his guess is a mere toss up, that is to say if he has really no reason for deciding one way rather than another, his action is of the nature of a gamble. But it is not a gamble when his decision is rationally based on his study of the conditions that give rise to the facts which he is trying to anticipate. Indeed, in this case, it is probably best not to say that the man is speculating, as the term 'speculating' is frequently employed narrowly to mean gambling in business. His act may be called an act based on reasonable anticipation, or at least it may be called a reasonable speculation.

Rational anticipation benefits society in two ways. In the first place, it brings it about that we can get many things as soon as we want them, instead of having to wait for them to be made. In the second place, it tends to spread supplies over periods of time in proportion to demand; so that too much is not consumed at one time, with the result that there is too little for another time. Thus, if the price of wheat drops, and the dealer of wheat thinks it is going to rise again, he buys at once to sell in the future. Through his action (if he was right), the relative excess in the present, which occasioned

the fall in price, is saved up for the future, when, otherwise, there would have been relative scarcity.

Of course, no reasonable speculator, however wise and well-informed, can be absolutely sure. But, if he is a specialist, gifted with the right sort of insight, and trained by experience to read the business signs of the times, he will more frequently be right than wrong. So on the whole he gains, and makes a gain for the community.

Blind speculation which is avoidable cannot be too strongly condemned. It renders business feverish, and causes needless insecurity. And, when it is rife, many people are perverted by it into neglecting honest work and trying to get rich quickly by lucky hits.

Trade Depressions.—For one reason because of the part played by anticipation in guiding production (but not for that reason only), trade does not go on steadily from year to year. Sometimes it is brisk and sometimes sluggish. The general ups and down are commonly known as trade cycles.

The explanation of the recurring trade depressions is not easy. Forecasts certainly play a part in their causation. Mistaken forecasts are made, with the result that of some things too much may be produced in view of the demand for them. Then the industries producing them become depressed,

as it is said, which means that they cannot dispose of their whole product at remunerative prices.

And, when depression starts anywhere, it is apt to spread. If remunerative prices cannot be got for boilers, there is less demand for steel to make them from, and for coal and ore, and the plant with which boilers and steel are made. Thus bad trade is passed on. And, as it leaves in its wake reduced aggregate earnings, so that the demand for consumers' goods is reduced, the trade of providing them tends to become bad also.

Trade depression is also apt to spread because people are influenced by the state of mind of their fellows. There is a tendency for trades to become depressed together when gloomy views about business in the future become common. Similarly, when cheerful views about future demand are common, trades tend to be very active, perhaps feverishly active, together.

Moreover, the state of good or bad trade may spread throughout the world. When American trade begins to droop, America buys less from abroad and English industries lose orders and begin to droop in turn. But when, on the other hand, over-trading starts in America, she imports more, and English trade becomes brisk.

In addition to what has been said above, it may be pointed out that, when harvests are unusually

good, trade tends to be stimulated; and that it may be stimulated into over-trading, so that depression follows. A fall in the price of food generally leaves people with more to spend on other things; whereupon the industries producing the other things are rendered more prosperous. Again, to give another example, a good cotton harvest means cheap cotton, which means a lower cost of production of cotton goods, which means prosperity in the cotton industry and greater activity. It has been suggested that good harvests tend to recur with a certain degree of regularity, and that any regularity in the trade cycle is partly attributable to this. But the correctness of this view must not be taken as settled.

Whatever the explanation of trade depressions, it is certain that they are responsible for much *unemployment* of labour (including *under-employment*) from time to time. They are not, however, the sole causes of unemployment. Sudden industrial changes, due perhaps to inventions, may be responsible for some unemployment, every now and then. And in every community people are to be found who are inefficient through illness, or physical or mental defects, or are unemployable because they are idle. And some people have more than their share of bad luck in finding the work that suits them.

Questions (with Hints for Solution)

1. *Carefully distinguish between industrial work and commercial work, and describe and classify all that is included in the latter. Do you regard commercial work as productive?*

The answer to the second part of this question depends upon the meaning that we give to 'productive' (see the first section of Chapter IV.). If the term is used broadly, to cover everything which results in the creation of utility, it should be maintained that commercial work is productive because it creates utility. The two classes of commercial work should be noticed, and the way in which each class is productive of utility.

2. *Using the term 'speculation' broadly, indicate the circumstances in which it is likely to prove* (a) *advantageous* (b) *disadvantageous to the community.*

The main point to emphasize is the distinction between business gambling and the reasonable anticipation which is based on experience.

3. *Give a brief account of trade depressions.*

CHAPTER VIII

MARKETS AND COMPETITION

Markets.—All commercial work has reference to what are called markets. We have now to ask in what exactly markets consist.

Economically interpreted, *the term 'market' refers, not necessarily to a place, but always to a commodity, or commodities, and buyers and sellers of the same who are in direct competition with one another.* So we may speak of the tea market, the iron market and so on, without meaning any particular place. There are world-markets, as well as local markets. There is a world-market for tea, since people all over the world are competing with one another in the purchase of tea. There are also local markets for tea, in London, Berlin, and many other places.

We must also distinguish between *wholesale markets* and *retail markets*. Wholesale markets are made up of people who buy or sell in very large quantities only. In buying tea, I do not come

directly into competition with a wholesale buyer of tea, because I buy by the pound and he buys by the ton. So I am not a part of the wholesale market for tea. To be a part of it (according to our definition of a market) I should have to buy in quantities which brought me into direct competition with wholesale dealers in tea.

In some produce markets, the commodities in which can be grouped in a limited number of grades, a system has developed of buying, for future delivery, goods which are not yet on the market and, perhaps, are not yet produced. Such buying and selling is known as *dealing in futures*. The methods of these markets are very like those of the Stock Exchange, where stocks and shares are bought and sold.

Competition.—The term 'competition' has already been used more than once, but it has not yet been defined. *There is said to be competition when* (a) *would-be buyers bid against one another, or when* (b) *would-be sellers bid against one another.* Competition may be one-sided or two-sided. As one-sided, it is competition between buyers *or* competition between sellers. As two-sided, it is both together. Organized markets serve to facilitate competition.

Under competition one price only can be charged, in the same place, for the same sort of commodity, at the

same time. Suppose three dairymen, Brown, Jones, and Robinson, are trying to sell milk in a district. And suppose Brown is willing to sell at 3*d.* a quart, Jones at 3½*d.* a quart, and Robinson at 4*d.* a quart. Then, if Brown could supply all the milk needed, all consumers who knew that Brown sold at 3*d.* would buy of Brown; and, if the fact were fully known, Jones and Robinson would sell no milk. In order to sell any milk, Jones and Robinson would have to drop their prices to 3*d.* Because of the competition of Brown, neither could extort 3½*d.* a quart from me, even were my desire for milk so intense that I would buy a certain amount at 6*d.* a quart rather than go without it. If Brown could not supply all the milk needed, nor Brown and Jones together, and Robinson would not, or could not, sell for less than 4*d.* a quart, all the milk would eventually sell at 4*d.* a quart. Buyers would first flock to Brown's dairy, and by competing with one another would force the price up to 3½*d.* When the price rose to 3½*d.* they would shop indifferently at Brown's and Jones's. But, as the supply of milk would still be insufficient, they would compete with one another and force the price up again, until it rose to 4*d.* and Robinson's supply came into the market.

Hence, under competition, one price must rule in a market for one sort of commodity, however intense

the initial demands of the consumers, and whatever the differences between the prices at which sellers are willing to sell if need be. Nobody would insist on selling at the lower price when he was offered the higher price—that is ordinarily. What is true of milk, in the above example, is true of everything else when competition rules.

Competition has been as much over-praised, perhaps, as it has been denounced. It is, therefore, important to be cool in our judgment about it, and not come to a final decision till we have read in the book of experience. Unquestionably, competition keeps people active and alert; and, when it takes place between producers, it protects the public against exorbitant charges. But, when in excess, it may cause an absurd waste of effort and misdirection of effort. And it may even foster in persons of weak character a distorted astuteness, which seeks for profit in shady, or positively dishonest, practices.

However, we must be particularly careful to remark that competition does not necessarily imply self-seeking. The purchaser of a picture, who has competed with others in buying it, may perhaps want it to present to a public art gallery.

Questions (with Hints for Solution)

1. *Define a market and classify markets. Also trace the connexions between wholesale and retail markets.*

As regards the second part of the question, it will have been observed that the sellers in retail markets are the buyers in wholesale markets. It is also notable that the demands of the buyers in wholesale markets express, or anticipate, the demands of the ultimate consumers.

2. *Prove that under conditions of competition one price only can be charged, in the same place, for the same sort of commodity, at the same time.*

CHAPTER IX

PRICE, OR VALUE IN EXCHANGE, UNDER COMPETITION

In trying to explain the settlement of the prices of things, we must distinguish between things which are reproducible (like wheat, carpets, steel, and most articles in the world) and things of which there are fixed and limited supplies only. We must also distinguish between cases in which there is competition and cases in which there is monopoly. For the present we disregard monopoly conditions.

The Price of Fixed Stocks of Things under Competition.—The explanation of the price of fixed stocks of things which are not reproducible (like old pictures and rare editions of books) presents no difficulties.

If the stock consists in just one thing, the person who would give most for it gets it. And he gets it at a price just exceeding what the next highest bidder would have paid.

If the stock consists of several things which are exactly similar to one another, the price at which

they sell must be exactly, or nearly, equal to the demand price for the number of them that there are. Let the demand prices for specimens of an old postage stamp be representable as follows :—

For one	18*s.*	would	be	paid.
For a second	15*s.*	,,	,,	,,
For a third	12*s.*	,,	,,	,,
For a fourth	11*s.*	,,	,,	,,
For a fifth	10*s.*	,,	,,	,,

Let there be four specimens in the market, owned by different people ; and let competition rule in their sale. Then the four specimens will sell for more than 10*s.* and for 11*s.* at most. There can be only one price. It cannot be more than 11*s.*, for only three would be purchased at more than 11*s.* It cannot be as little as 10*s.*, because five would be purchased at 10*s.* If the price showed a disposition to settle at 10*s.*, the competition of buyers would force it up. If it showed a disposition to settle at 12*s.*, the competition of sellers would drive it down.

Supply Prices of Reproducible Things.—The case of things freely produced is not so easy to deal with, because their supply depends upon the price paid. If the price of a reproducible thing is so high that the people making it are earning unusually good incomes, other people will emulate their example, and the supply of the thing in question will be increased. Therefore, to under-

stand how the prices of such things are settled, we must make some study of costs of production.

By *cost of production* we mean now the charges incurred in producing and marketing an article. These consist in the wages of labour; interest (that is payment for the loan of capital, which the employer may be regarded as paying to himself when the capital is his own); cost of material and so forth; and, in addition, in the case of each firm, remuneration for the employer sufficient to induce him to enter the industry, or remain in it. It is implied here, for the sake of simplicity of statement, that every producing business is managed by a single employer.

Now, different employers do not necessarily produce at the same cost, even if we take only fully-developed businesses which are prosperous into account. Consider the felt hat industry. Suppose that, at a particular time, it is organized to turn out a weekly supply of 10,000 hats. One normal firm might produce hats at an average expense (that is expense per unit of output) of 5*s*. But it does not follow that every normal firm would be producing at an average expense of 5*s*. per hat. Indeed, it is practically impossible that every one of them should. Some of the employers would be cleverer and more painstaking than others, and more successful in getting the most economical labour, plant, material

and accessories for their money, and in organizing their works. Consequently, there would be many different costs of production.

Price must equal the highest of these costs of production, if the industry is to go on turning out its 10,000 hats per week, no more and no less. If the price were higher, other people would be attracted into the industry, and additional capital would be invested in the industry, so that a greater output than 10,000 hats would be reached. If the price were lower, a sufficiency of labour, capital, or employers, would not be kept in the industry, or attracted into it, to enable it to go on turning out 10,000 hats per week.

The reader may demur at first to this conclusion. Why, it may be asked, should not the people who produce cheapest get all the trade and furnish the whole 10,000 hats? The answer is that these people are not unlimited in number, and that the amount of the work each can efficiently undertake is limited. Why, again, it may be objected, do not consumers buy the hats produced cheapest and wait for more of the cheap ones? Because, the response runs, the supply of cheap hats would not be adequate.

The firm with the highest cost of production, for a given output of the industry, is called the *marginal firm* for that output. There may be more than one. The cost of production per unit of output

of the firm which is marginal for a given output of an industry is commonly called the *marginal cost of production* for that output. As we have learnt, it is this cost of production which is the supply price for that output, meaning the price which must be paid if that output is to be secured.

Equilibrium of Demand and Supply.—Thus we see that the price of reproducible things is determined by demand prices, on the one side, and supply prices (meaning the marginal costs of production for different outputs), on the other side. But it will be as well to represent the two influences by a numerical example, in order that we may perceive at a glance, without fear of misunderstanding, how exactly they do their work.

In the table that follows, the supposed demand prices for different quantities of hats per week are stated, and also the supposed supply prices for the same quantities:

Number of Hats per week.	Demand Prices.	Supply Prices.
5,000	5*s.* 8*d.*	5*s.* 4*d.*
6,000	5*s.* 7*d.*	5*s.* 3*d.*
7,000	5*s.* 4*d.*	5*s.* 2*d.*
8,000	5*s.* 2*d.*	5*s.* 1*d.*
9,000	5*s.* 1*d.*	5*s.* 0*d.*
10,000	**4*s.* 11*d.***	**4*s.* 11*d.***
11,000	4*s.* 8*d.*	4*s.* 10*d.*
12,000	4*s.* 7*d.*	4*s.* 9*d.*
13,000	4*s.* 5*d.*	4*s.* 8*d.*

It will readily be perceived that, in the case represented, 10,000 hats will be produced weekly, and that the price will be 4*s.* 11*d.*

Suppose more hats were turned out, say 11,000. Then some employers would be manufacturing at an average cost (including adequate remuneration for themselves) of 4*s.* 10*d.* and selling at 4*s.* 8*d.* which would not be good business. Consequently, they would cease to do so, as soon as they could, and the industry would contract until the output of 10,000 hats a week was reached.

Suppose that 9,000 hats a week were turned out. Price would then be 5*s.* 1*d.*, and the full costs of the marginal firm (including adequate renumeration for the employer) no more than 5*s.* Consequently, the industry would be exceptionally profitable, and would attract extra supplies of capital, organizing power, and executive labour. So its output of hats would rise. As the supply of hats rose, the price would fall. The reactions described would cease when the output had advanced to 10,000 hats a week and the price had dropped to 4*s.* 11*d.*

It must be carefully borne in mind that this demonstration holds only of the long run, or, as it is said technically, the *long period.* It shows what will happen eventually, after full time has been given for supply to adjust itself to demand—for unsuccessful employers to retire, or new

employers to get satisfactory agents in production and organize their works.

Supply Prices and Increasing Returns.—A few comments on the character of the table from which we have reasoned may now be offered. The prices in the second column descend because of the law of demand (see page 9). Those in the third column may ascend, or descend, or keep the same, or do first one thing and then the other. They will ascend if decreasing returns rule in the industry, descend if increasing returns rule in the industry, and keep level if constant returns rule.

The reader who has not carefully pondered over what has been said on pages 35 and 36 about increasing returns, may be puzzled at first by the descent of marginal costs of production with rising outputs of an industry. He may very naturally wonder how, for instance, in the case represented by the table above, the marginal cost of production for an output of 10,000 could possibly be 4*s.* 11*d.* when the marginal cost of production for 9,000 was more, namely 5*s.* He might argue that the marginal producer for the smaller output would probably be superior to the marginal producer for the larger output, and would therefore produce at a lower cost. This might be true, and if so the marginal cost of production for the larger output would, for a time, be higher than the marginal cost of production for

the smaller output. But it would not be so eventually, if the industry were subject to increasing returns. For in this event, all costs of production, including marginal ones, would fall after the larger output had enabled a larger amount of machinery per head, and more specialism, to be introduced into the industry in question and the industries subsidiary to it.

Questions (with Hints for Solution)

1. *Since, in any industry, all producers do not produce at the same cost, though (under competition) all sell at the same price, how is it possible to establish any relation between cost of production and price?*

The opening statement in the question should first be justified. It should then be argued that by 'cost of production' we intend the cost of production of the marginal firm, when we say that cost of production helps to settle price. The meaning of the marginal firm must be brought out. It must also be made clear that 'cost of production' is to be understood as the cost of production per unit of output of a firm.

2. *Show that the prices of things are determined both by demand and supply.*

The meaning of demand in this question must be precisely stated, because in ordinary speech demand is used vaguely. The point to bring out is that 'demand' here means market demand, and indicates the prices that will be paid for different quantities of a commodity. The student who wants to write a full answer might go on to trace the origin of market demand in individual demands. As regards supply, it is important to distinguish between reproducible things and

non-reproducible things. In the case of the latter, supply means the stock on hand. But, in the case of the former, it is not sufficient to give it this meaning (if we are to maintain that supply determines price), since the quantity of the supply depends upon the price. Consequently 'supply' in this question, in the case of reproducible things, must mean the prices at which different quantities of the commodity will be produced. Part of the answer to the first question would have to be included in a complete answer to this one.

3. *Account for the fact that, in the long run, increased supply is followed by* (a) *a rise in price in some cases and* (b) *a fall in price in other cases.*

This question, of course, has reference to what is termed decreasing and increasing returns.

CHAPTER X

PRICE READJUSTMENTS AND MONOPOLY PRICE

Effect of Increased and Decreased Demand.—Let us now propound the question as to what happens in the long run if demand increases. An increase, or rise, in demand means that demand prices are raised; which is to say that more will be bought at the old price, and that for the old quantity a higher price will be given.

Obviously, in the case of a non-reproducible thing, since the supply is fixed, price must rise when demand rises. But, in the case of a reproducible thing, the supply is not fixed. Then, obviously, more of the reproducible thing will eventually be produced and bought, when demand rises. How the price of the reproducible thing will be affected, will depend upon whether supply prices are higher, lower, or the same, for an increased output. If supply prices are lower, price will fall; if they are higher, price will rise; if they are the same, price will be constant. The effect on price

of decreased demand, that is a fall in demand prices, can be at once inferred from the above.

Again it must be remarked that these conclusions, as regards reproducible things, hold merely in the long run. Increased outputs *at first* are obtainable only at enhanced costs of production. This will be evident when it is remembered that the additional outputs can only be procured at first by working uneconomical hours, or at uneconomical speeds, or with unskilled labour, or with unsuitable machinery, and, possibly, in over-crowded workshops. Hence the effect of increased demand at first must be a rise in price. And, when demand shrinks, price is almost certain to fall at first, whatever happens ultimately.

After the foregoing discussion, it will be sufficient merely to state that, when the cost of production of anything is altered, the full effects are not immediately experienced.

Theory of Monopoly Prices.—In what has been written above, it has been supposed that competition rules. Let us now ask what happens, as regards the settlement of price, in the opposite case of monopoly.

There is complete or partial monopoly in the supply of a thing, as we have seen, when there is absence, or unusual hindrance, of competition in the supply of that thing. The monopoly may be in the

hands of an individual; but, if the supply is large, it is more likely to be in the hands of a group of people or a public authority, as we have also seen. In what follows, however, for convenience of phraseology, I shall speak as if the monopolist were always a single individual.

Naturally, the monopolist who is guided solely by self-interest will aim at furnishing the supply for which his net receipts (namely his earnings for himself) are the largest possible. He might gain most by selling a small quantity at a high price, instead of a large quantity at a low price; and, if so, his self-interest would induce him to do so. Under competition, of course, it would be futile for any employer to restrict his supply with a view to getting a price higher than the ordinarily remunerative one, because of the competing supplies produced by others, which would increase as his fell off.

It must be allowed, however, that a monopolist has seldom a free hand in settling price. He must pay some regard to public opinion. More or less satisfactory substitutes for the monopolized article may be discovered if people are goaded by exorbitant charges into seeking them. Again, when competition is not impossible, rival producers may be tempted into the field if the monopolist acts so as to make his gain excessive. Finally, there is a

greater chance of interference by the State when monopolists totally disregard the public interest. Hence monopolists will usually choose a large output (meaning a low price) if no very substantial addition would be made to monopoly profit by restriction of output.

A monopolist's power is further curbed when consumers are allied. A compact union of consumers may force the monopolist to sacrifice a great part of his monopoly revenue. By combining, consumers establish what may be called a consumers' monopoly.

Monopolists are sometimes able to charge different prices for things of the same kind, when they are sold in different places, or for different purposes. When monopolists do so, their action is guided by the principle already laid down, but the problem of doing the best for themselves becomes more complicated.

Needless to say, when municipalities, or other governmental bodies, monopolize a service, they will not be actuated by the same motives as the private monopolist. They will take public convenience into account. So municipalities which supply gas are not likely to charge a price which yields the maximum profit.

Value in Use and Value in Exchange.—A few words may now be said to bring the contents of this

chapter and the previous one into relation with the contents of Chapter II.

The *value in use* of a thing to a person commonly means its total value in use to him, that is the total utility derived by him from it. Its *value in exchange* means what it will exchange for; which, when expressed in money, means its price. Now, the latter, that is the value in exchange, or price, of a thing, corresponds, not with its aggregate utility (total value in use) to anybody, but with its marginal utility (see page 7) to everybody who buys it. This is so because the price per unit of any given supply of a thing must equal the demand price for such a supply, and demand prices are the expressions in money of the marginal utilities of things to people (see page 9).

Things that are scarce in relation to the demand for them have a high value in exchange, because they have a high marginal utility. But their total value in use may not be great. On the other hand, things which are plentiful in relation to demand have an insignificant value in exchange, despite the fact that their total value in use may be enormous. Some things, indeed, which are so plentiful that their marginal utility is nothing, have absolutely no value in exchange. Nevertheless, they may have immense total value in use; though, ordinarily, we should take this for granted and hardly notice it,

if we noticed it at all. It is only when the well runs dry that we become fully alive to the value of water.

Questions (with Hints for Solution)

1. *What are the immediate and ultimate effects of an increased demand for a commodity?*

The ultimate effects, in the case of reproducible things. depend upon the conditions of production, which may be such that increasing returns rule or such that decreasing returns rule.

2. *Consider the following statement: 'The price of a commodity always tends to equal the money value of its marginal utility to the purchaser, but it only tends to equal its cost of production when monopoly does not rule in its production.'*

The truth of the first part of the quotation can be shown by reducing market demand to individual demands, and showing that the latter depend on the marginal utilities of things to people. In the answer to the second part of the question, the principle according to which monopoly prices are settled must be brought out; and a contrast must be drawn between the settlement of price under conditions of monopoly and the settlement of price under conditions of competition.

CHAPTER XI

THE COINAGE AND GRESHAM'S LAW

Inconvenience of Barter.—People began to use money to escape the inconveniences of bartering. Bartering means exchanging articles directly for one another. After a time the inconveniences of bartering became intolerable, because, as people progressed, they resorted increasingly to division of labour to magnify their output. When they did this, they necessarily added to the amount of exchanging which had to take place between them.

The chief inconvenience of barter consists in the fact that for each act of barter a double coincidence of wants is requisite. If I have a plough to barter, I must find a person who not only wants a plough, but also possesses what I require, say a number of different household utensils. Endless time might be spent in seeking such a person; and the chances are that I should have to give up the quest and rest satisfied when I could sell my plough for any articles which came within measurable distance of what I wanted.

And I might have to sell, in addition, at an unfavourable rate of exchange. For I might not succeed in discovering a person in urgent need of a plough who had at his disposal what I required. Likewise, anybody who took my plough might have to put up with a second-best satisfaction of his wants. In the circumstances, he and I might esteem ourselves fortunate in not having failed utterly to attain our ends at a reasonable cost.

The enormous difficulty of getting satisfactory results out of bartering will be still further appreciated when we dwell upon the awkwardness, under that system, of accommodating units of sale to units of purchase. If a grazier requires numerous small articles, his task in marketing by barter is almost impossible of performance, even with the utmost patience. With a sheep, he would be able to purchase a great deal. But, unless he divided up the sheep, he would have to find somebody who both required a sheep and possessed, or would get for him, by yet further processes of this vexatious bartering, the multitude of articles to obtain which he was ready to sacrifice his sheep.

Moreover, under the system of bartering, endless higgling over every purchase must almost inevitably occur ; and an immense amount of time must be wasted in consequence.

Emergence of Money.—The impossibility of doing business speedily and satisfactorily by means of barter constrains people to sell things for some other thing which they do not require, in the hopes of selling the latter again for what they do require. When any commodity is made to render an indirect service in this way, it is being employed as money (in the broadest sense of the term), that is as a medium of exchange.

We can imagine that, as a result of a sort of natural selection, certain articles are promoted to serve the purpose of media of exchange. The fittest for the purpose survive, and get established as the customary media of exchange, or money.

It is easy to perceive why some commodities are chosen for money rather than others.

1. Money must be easily *transportable,* because the medium of exchange has to be carried about to do its work as money.

2. The money commodity must be *cognoscible*; that is to say it must be readily recognizable for what it is, so that persons who accept it may not be deceived easily.

3. The money commodity must be *divisible* without losing in value, so that it can be made up into large and small coins. Much value is destroyed when precious stones are broken up, but little, if any, value is destroyed when metals are broken up,

because, if necessary, the pieces can be fused together again.

4. The money commodity must be comparatively *imperishable*; because, when people take it in exchange for goods, they may have to keep it for a time before using it again. Besides they may want to save it up.

5. The money commodity must be fairly *constant in value*, as otherwise people may lose through keeping it.

Metals, and particularly the more precious metals, are admirably endowed with the right qualities for money. They are recognizable without difficulty, divisible without loss of value, easily transportable, comparatively imperishable, and more constant in value than the majority of other things.

It will be evident that the final choice of a metal, or group of metals, to serve as money depends upon the wealth of the community which is making the choice. Gold would be too valuable for the purpose in early stages of civilization. People have so little to spend in early stages of civilization that the coins in commonest use, if formed of gold, would have to be absurdly tiny. If a man's income, expressed in gold, is only one pennyweight of gold per week, his buying with gold would plainly be out of the question. Similarly, copper is not of sufficient rarity to serve as the standard

of value when a community has become comparatively wealthy. Well-to-do people to-day would have to carry loads of copper about, when they went marketing, if copper coins were the only money.

Minting.—When a metal has come into use as money in a country, it is called the *standard of value*. The Government then makes it up into coins of a given weight and fineness. In doing this it is said to mint.

It would be possible to have a medium of exchange unstamped by the Government; and such unstamped money has existed. But its use causes endless trouble and irritation; since, in this event, every person has to discover for himself how much of the standard metal is contained in each lump of it which is offered him in exchange.

It is usual for Governments, in stamping pieces of metal (and thus transforming them into standard coins) to introduce a complicated design in faint relief and to mill the edges of the coins. They do this with the object of checking the fraud which consists in extracting metal from coins and putting them back into circulation. When coins are so stamped and milled, shaving their edges and rubbing their surfaces leave traces in smoothed edges and defaced designs.

Free and Gratuitous Coinage.—Coinage is said to

be *free* when the Government will coin, without unreasonable delay, any amount of the standard metal on the demand of anybody who brings it for the purpose. Coinage is not free if the Government coins entirely on its own initiative, buying the requisite bullion.

Nevertheless, it is not essential to the system of free coinage that it should be customary for individuals to take bullion to the Mint to be coined. England is rightly said to have a system of free coinage, but it is usual for people in England to carry their bullion to the Bank of England and receive at once its value in coins or notes, less a small commission charged by the bank. If taken to the English Mint, gold realizes 3*l.* 17*s.* 10½*d.* an ounce, but the officials at the Mint may keep a person waiting for some time before delivering his coins. The Bank of England ordinarily pays 3*l.* 17*s.* 9*d.* per ounce and pays immediately. The gold that it buys it gets coined by the Mint as necessity arises.

Coinage is said to be *gratuitous* when the Government, as in England, does the work of minting standard coins (as coins made of the standard of value may be called) without making any charge. If fees are charged, and their yield exactly covers the cost of coining, the fees are known as *Mintage* or *Brassage*. Any exaction in excess of this is called a *Seigniorage*.

When a seigniorage is exacted, the charge is usually taken out of the coins; so that they are made lighter, or alloy is put in to take the place of such an amount of standard metal as has been extracted. When standard coins are treated in this way, they are said to be made light or *debased*, as the case may be.

The usual consequences of making light or debasing standard coins are very serious. After either treatment, it pays the Government to issue more money, since the value of the bullion in a standard coin, plus the cost of minting it, must then be less than the exchange value of the coin. And the issue of more money reduces the purchasing power of each coin (as we shall learn), which is upsetting to business, and a hardship to those whose money incomes do not rise proportionally. Moreover, tampering with the coinage causes a fear of further tampering, so that the feeling of security (upon which steady application depends) is destroyed.

Gresham's Law.—This law lays it down that bad money drives out good money, when the two exist side by side. Its application to the currency under a system of free and gratuitous coinage, is immediately evident. The coins first selected for melting, or exporting, would naturally be the full-weight coins because they would contain most metal.

Hence the importance of keeping the standard coins of a country at a high level of perfection. They are kept at a high level of perfection by the instant withdrawal of light and defaced coins from circulation. The withdrawal is usually effected by laws declaring that no coin which has fallen below standard weight, by a certain percentage, or has been defaced in certain ways, shall be lawful money and pass legally by tale (as it is expressed), that is be compulsorily exchangeable at its face value, meaning its stated value.

Gresham's law applies only in a modified form to systems of coinage under which coins have a purchasing power in excess of their intrinsic value, that is the value of what they are made of. Such coins would never be melted or exported. But it would still be found that the worst coins would be parted with most readily. The law is called Gresham's law because it was laid down—not for the first time—by Sir Thomas Gresham, a master of the Mint in the reign of Elizabeth.

Questions (with Hints for Solution)

1. *Comment upon the statement that the discovery of money was essential to the economic progress of society.*

Here many issues are raised. In the first place, there are reasons to suppose that money, instead of being suddenly discovered, evolved, so to speak, when people (for the sake

of convenience) began to sell their goods for other things which they did not themselves want, but intended to pass on again in exchange for what they did want. Having noted this point, the student might go on to support the statement on the ground that increased division of labour (which is involved in economic progress) necessitates increased exchanging, and that very much exchanging is impossible under conditions of barter, because of the enormous trouble and waste of time associated with bartering. The inconvenience of barter should be fully explained.

2. *Explain how it is that the precious metals have been selected for the purposes of money, and why Governments mint the metals selected as money in the form of coins.*

The answer is contained on pages 71–3.

3. *Enunciate Gresham's law. Is this law in operation when a seigniorage is charged?*

The meaning of seigniorage is explained on page 74.

CHAPTER XII

CREDIT MONEY AND BANKING

Credit Money Classified.—Broadly speaking, all money which has a face value greater than its intrinsic value is credit money; because its acceptance is dependent upon the credit of the Governments, or persons, who put it into circulation However, it is customary to confine the term to money which is not made of the standard metal. Credit money is ordinarily regarded as consisting of notes, token coins, and cheques. Bills of Exchange (see page 106) are used as media of exchange, but they are not commonly termed money.

Notes may be either paper money issued by the Government, or bank-notes. *Bank-notes* are engagements to pay bullion which are put into circulation by banks. They are, therefore, based on the credit of the banks issuing them. *Token coins* might be regarded as promissory notes of small denominations stamped on metal, except for the fact that, for convenience, they are made legal tender in limited

sums. At the present time, they are issued as a rule by Governments only. The silver and copper coins in England, and the nickel coins in America, Germany and elsewhere, are token coins. The nature and use of cheques will be explained later.

Governments which issue paper money should be scrupulously careful not to issue it in excess, lest holders of notes should find a difficulty in changing them for bullion. All paper for the redemption of which in bullion on demand no arrangements are made is termed *inconvertible*, or *irredeemable*, paper money. There is little objection to irredeemable paper money, if its issue is so stringently limited that neither trouble nor expense is met with in getting it converted. If it is not easily convertible, for obvious reasons it will depreciate, that is to say the value at which it changes hands will become less than its face value. And its value may even become nothing, as persons may fear that it will not be accepted by others.

In this connexion it may be noted that it is not really necessary to have any coins made of the standard metal. All that is needed is secured if token and paper money can always be got, through banks, for the standard metal, at a fixed rate; and if the standard metal can similarly be got, on demand for notes and tokens, at the same rate.

In some countries little money made of the standard metal is used, and in a few the plan of coining none is being tried. The maintenance of a gold currency is naturally a great expense.

Currency and Legal Tender.—Two terms have now to be explained, namely 'currency' and 'legal tender.'

Currency is the name given to money which circulates, because in circulating it may be regarded as flowing or current. Money is said to circulate when it changes hands again and again. Notes as well as coins are currency. By some people, the term 'currency' is applied only to money issued by Government.

Legal tender may be defined as all money which can be offered in limited, or unlimited, quantities in full discharge of debts. All Government money is legal tender; and some of the money of which the issue is regulated by Government may be legal tender—such as Bank of England notes. An example of limited legal tender in England is afforded by token money (which has an intrinsic value less than its face value). No person is compelled to take in discharge of a debt more than 1*s.* worth of copper coins or 2*l.* of silver coins. These limitations protect creditors against forms of payment which are a nuisance; make it difficult for false coiners to put many spurious token coins

into circulation; and check the over-issue of token money.

The Cheque System.—Cheques are not currency, because they hardly circulate at all. But they may be called money, if the term 'money' is given a very wide signification; though it is less confusing to call them credit-substitutes for money. They are in fact orders issued by depositors in banks requiring their bankers to make specified payments. They depend for their value on the good faith of the persons drawing them (which means broadly the credit of these persons) and on the credit of the banks on which they are drawn. For many purposes cheques are more convenient to use than bank-notes.

We shall now consider the economical system of cancelling indebtedness by means of cheques. By means of cheques, people can discharge their money obligations without using any coin at all, or or causing any to be used. If Jones and Smith bank at the same bank, a cheque drawn by Jones and paid to Smith, when passed into the bank, merely effects an alteration in the accounts of these two customers of the bank in its books. And if the two people bank at different banks, the cheque can also be dealt with in such a way as to avoid the use of currency, through the agency of an institution known as a clearing house.

In a banker's *clearing house* the accounts of banks against one another are made up. Debts and credits are cancelled out against one another, as far as may be, and balances only are paid over.

Thus, suppose there are two banks, A. and B., in the same town, and customers of A. have presented cheques to customers of B. for 1,000*l.*, while customers of B. have presented cheques to customers of A. for 2,000*l.* In the clearing house the one debt is deducted from the other, so that it is merely the balance of 1,000*l.* which has to be actually paid.

If A. and B. are in different towns, they can be represented by agents at some central clearing house, where the same principle can be applied. Thus in England the clearing house in London is used as a central clearing house, while the local clearing houses, which are found in most large towns, are used for local business.

Through the clearing-house system, an enormous economy of cash has been effected, and an enormous economy of time. The clearing-house system has been adopted by businesses other than banks, for instance by railway companies.

Functions and Value of Banks.—Banks bring about great economy in the use of the precious metals in currencies, by issuing notes, when they are empowered to do so, and by instituting cheques. They also serve as places of deposit for people's

money, and as reservoirs from which loans may be made.

By lending money, bankers place purchasing power in the hands of business men and thus provide capital for business. But much of the money lent can only be lent for short periods. For circumstances might at any moment give rise to a sudden withdrawal of deposits from banks, and bankers would then have to call in their loans. However, the short loans of banks (which last long enough for trading purposes) allow capital which would otherwise have been used in trading to be locked up in industrial undertakings.

The whole of the economy of an advanced community is bound up with its banking system. Only a fraction of the business of the world is now done without recourse to bankers' advances. This being so, the stability of banks, and their prudent and at the same time enterprising management, are essential to a country's prosperity.

By the English Bank Act of 1844, the growth of note-issuing by banks was checked. A maximum issue, which roughly corresponded with the issue at the time, was laid down for each bank. Note-issuing on the part of banks established after 1844 was not permitted. Moreover, it was provided that banks, on amalgamating with one another, should usually lose the whole, or a part, of any note-issue

that they might have had; though, in this event, the Bank of England was empowered to take over a proportion of the surrendered issue. Thus the Act, in effect, provided for a reduction of the quantity of bank-notes in circulation.

But for the immense substitution of cheques for bank-notes in succeeding years, some modification of the Bank Act would have been essential. As it was, the Bank Act, in its bearing on the Bank of England, had to be temporarily set aside twice, in times of crisis, to enable the Bank of England to print more notes to satisfy a panic demand for cash.

It is highly important that banks should keep such reserves of cash that there is no fear of their being unable to pay cash on the demand of their depositors. A certain amount of the reserve must be kept in the form of gold—seeing that much gold is used for cash at home, and that gold alone will serve to discharge in cash any balances owing to traders in gold-using foreign countries.

It has become customary for British Banks to deposit a large part of their reserves with the Bank of England; and leave it to the Bank of England to settle how much to keep in the form of gold. So England has, to a large extent, a one-reserve system. The custom has come about owing to the prestige and peculiar position of the Bank of England. The Bank of England, which was founded in 1694, is not

a Government institution. But it is understood that its position is one of special responsibility; and it is presumed that, whenever needful, the Government would act so as to lend it support.

Questions (with Hints for Solution)

1. *Classify the various forms of money, using the term 'money' in its broadest sense, and define 'currency' and 'legal tender.'*

2. *Indicate the manner in which indebtedness can be cancelled by means of cheques, without the use of currency. Do any advantages accrue to the community from the cheque system?*

As regards the second part of the question, these points should be made: (1) That the cheque is a convenient form of payment in many cases, through which the trouble and insecurity involved in carrying coin about may be avoided; and (2) that the larger the proportion of the payments made by cheque, the smaller is the quantity of coin needed in a country, so that the country saves the cost of the metal, and the cost of the minting, of the extra coins which would be needed if cheques did not exist. It must be argued that bank-notes could not be expected fully to take the place of cheques, if the latter disappeared, because bank-notes can only be issued in fixed denominations, whereas cheques can be drawn for any amount. I can draw a cheque, for example, for 5*l.* 17*s.* 11*d.*; but no Government would dream of issuing bank notes of such an amount, though it might issue both 5*l.* notes and 6*l.* notes.

3. *Indicate the part played by banks under modern conditions. What is meant by the Bank Reserve? Why is a reserve necessary?*

CHAPTER XIII

THE PURCHASING POWER OF MONEY

We have now to consider how the purchasing power of money is determined.

The purchasing power of money has reference to the number of things that a unit of money will buy. Purchasing power is said to be high when a unit of money will buy a great deal, and low when it will buy only a little. Evidently, high purchasing power of money means low prices, and *vice versa*. For, when a sovereign buys a lot, each thing must sell for less than it will fetch when a sovereign buys only a little.

Theory of the Purchasing Power of Money.—Broadly put, the theory of the purchasing power of money—sometimes called the quantity theory of money—declares that *purchasing power is high* (*and prices are low*) *when there is little money, and that purchasing-power is low* (*and prices are high*) *when there is much money*, if the supply of purchasable things is about the same in the two cases.

The truth of this theory of money has been demonstrated, again and again, by experience. For instance, at the time of the important discoveries of new-gold mines about the middle of the nineteenth century, prices rose in gold-using countries. The reason was that more gold coins were minted when there was more gold, while the number of things to be bought did not increase. So there was more money to buy a given quantity of things with, and prices consequently had to rise. Again, it has been observed more than once that prices rise in a beleaguered town. The explanation is that the store of things in the town gets used up, so that day after day there is less to buy, though the money in the town to do the buying remains as it was originally.

Explanation of the Theory.—To put this theory of money more precisely, let us take an imaginary case in which the sole kind of coin in use is the sovereign. And let us suppose that all exchanging is conducted with sovereigns, that no credit is given, and that no sovereigns are saved up. Then the *quantity of exchanging to be done* over a given period must be one item in the explanation of the purchasing power of money. The *quantity of money* must be another item; and the *frequency with which money changes hands* in effecting exchanges over the given period must be another.

The frequency with which money changes hands in a given time, to make purchases, is called its *rapidity of circulation.* Thus, suppose I pay my grocer a sovereign; and the same day he uses the sovereign to pay a plumber's bill; and the plumber, before the day is out, buys a pair of boots with the sovereign. Then, in the one day, the sovereign in question has changed hands three times, and bought three sovereigns' worth of goods and services in consequence. So we say that its rapidity of circulation was three on that day. Let us assume that it is possible to speak of the average rapidity of circulation of money as a whole; and thus escape the trouble caused by the fact that one sovereign might change hands more frequently, in a given period, than another sovereign.

By 'quantity of exchanging to be done' is meant the sum of the values of the exchanges to be effected, expressed as a multiple of the exchange value of some article. Thus let the price of a peck of wheat be the unit. Then the sale of a peck of wheat counts as one unit of exchange; and the sale of a horse, when a horse is worth 1,000 pecks of wheat, counts as 1,000 units of exchange.

Now the money in existence to do the money work (that is buying up the things to be bought) must just effect its object, in view of competition.

So the solution of the problem of the purchasing power of money, in the simple case imagined, is as follows. The quantity of exchanging to be done in a year, say, divided by the figure obtained when we multiply the number of sovereigns in use by their average rapidity of circulation in a year, yields the purchasing power of the sovereign. It will be seen that allowance can easily be made for hoarding.

Evidently, then, the following statements are true. If the quantity of money increases, other things being as before (namely, in this case, the rapidity of circulation of money and the quantity of exchanging to be done), prices will rise. If the rapidity of circulation of money increases, its quantity remaining as before and also the amount of exchanging to be done, prices will rise. But if there is an increase in the quantity of exchanging to be done, and the quantity of money and its rapidity of circulation remain unaltered, prices will fall.

Supply of Gold Coins.—The question of the supply of gold coins must next receive some attention. The supply depends on the amount of gold which is mined ; the amount which remains of what had previously been mined; and the proportion of the supply of gold which is used for purposes other than money, or in the arts, as it is commonly expressed.

We shall first notice the principles according to which gold is distributed between the currency and ornamental and other uses in the arts. We still assume, for convenience of exposition, that the only coin is the sovereign, which contains about $\frac{240}{934}$ of an ounce of gold. And let us assume that people may melt down sovereigns if they like—as actually they may—and that the Government will freely and gratuitously coin anybody's gold bullion into sovereigns for him.

In this case the purchasing power of the sovereign (that is how many things it will buy) must equal its exchange value as a piece of gold (that is the number of things that it will exchange for as a piece of bullion). In other words, the sovereign must buy just $\frac{240}{934}$ of an ounce of gold. If it would buy more gold than this, people would get some of their gold ornaments, and other things made of gold, coined into sovereigns, and devote less gold in the future to the arts. They would do this, which we suppose to be possible, because their gold would have higher value in the form of sovereigns than in other forms. Correspondingly, if a sovereign would buy less than an ounce of gold, it would pay to transform some sovereigns into articles made of gold—and we suppose that is possible.

Clearly, then, gold gets so distributed between the currency and the arts that the purchasing

power of a sovereign equals the exchange value of the weight of gold contained in it.

Now we have to ask, *What settles the amount of new supplies of gold?* It is sufficient to say that there will be a tendency to mine gold in such quantities that the supply price of the amount of gold contained in a sovereign will be a sovereign. If getting a sovereign's worth of gold cost more than a sovereign, the mining of gold would temporarily cease. But if, on the contrary, a sovereign's worth of gold cost much less than a sovereign, enterprise in gold-mining would be stimulated and the output of gold would increase. It remains to add that the amount of gold produced each year is obviously governed to some extent by the rate at which the existing stock of gold wears out.

Of course, when the standard of value is not gold but silver, as it is in some countries, the above theory holds, but the term 'silver' must be substituted for 'gold.'

Effect of Credit on the Purchasing Power of Money.—We may bring our account of the theory of the purchasing power of money a stage nearer reality by allowing for the effect of credit. The bulk of exchanging in the modern world is effected by means of credit. The instruments of credit are notes, cheques, bills of exchange, and token money. Evidently, when credit money is added

to other existing money, the quantity of media of exchange is increased. Hence the purchasing power of money is reduced; and consequently some gold is driven from the currency into the arts.

The effect of credit on the purchasing power of money may be observed, as a rule, when trade gets unusually brisk. At such a time there is a tendency for more credit instruments to be created, because more bills of exchange are created and discounted, and more loans are obtained from banks which enable more cheques to be drawn. But the number of things produced is not likely to be correspondingly increased. So prices rise—that is to say, the purchasing power of money falls. It must be added, however, that the rise in prices, when trade is brisk, is partly due to the fact that money shares in the greater activity and circulates more rapidly.

On the other hand, when trade is depressed the supply of credit instruments shrinks, and the circulation of money becomes sluggish. So prices fall — that is to say, the purchasing power of money rises.

Appreciation and Depreciation of Money.—Money is said to *appreciate* when its purchasing power rises. It is said to *depreciate* when its purchasing power falls. As we have seen, if the quantity of money remains fixed, an increased supply of purchasable things causes an appreciation

of money, and a decreased supply of purchasable things a depreciation of money. Likewise, if the quantity of purchasable things remains fixed, an increase of money causes depreciation of money and a decrease of money appreciation of money.

Variations in the purchasing power of money are measured by means of *index numbers of general prices*. These are numbers in each of which the prices of numerous things are averaged.

Questions (with Hints for Solution)

1. *Trace in detail the effect of the discovery of new gold-fields upon the general level of prices.*

After pointing out that the new gold-fields will not be worked unless the cost of getting gold from them is no greater than the cost of getting gold from mines already worked, the student should go on to demonstrate, by expounding the quantity theory of money, that any new supplies of gold would cause prices to rise in countries using gold for money.

2. *How is it that the price of gold in the United Kingdom never becomes appreciably more or less than* 3*l.* 17*s.* 9*d. an ounce?*

This question is answered in the above chapter, on pages 74 and 90.

3. *Would the sudden introduction of the cheque system into a country, in which cheques were not previously used, cause appreciation or depreciation of money?*

To give a full answer to this question it is necessary to explain the meaning of appreciation and depreciation, in connection with money, and also to explain the cheque system. An outline of the correct answer will be found on pages 90–3 above.

CHAPTER XIV

INTERNATIONAL TRADE

TRADE at home, and the settlement of the rates of exchange between things at home, have already been explained. Nevertheless, an independent examination of international trade must be made, because labour and capital flow much less readily between country and country than between different parts of the same country.

In consequence of this relative immobility of labour and capital internationally, an industry may be carried on much less economically in one country than in another country. For there may be a relative dearth of capital or suitable labour in the one country. If the two places were two parts of the same country, instead of two countries, labour and capital would be so distributed between them that neither place would suffer from such a dearth of either labour or capital. Where, for instance, there was a relative dearth of capital, its earnings would be unusually high;

and by its unusually high earnings more capital would be attracted.

International Immobility of Labour and Capital.—Workmen are reluctant to emigrate to foreign countries for many reasons. There may be the difficulties of learning new languages. And people do not like to be severed from their countrymen. Moreover they are apt to be repelled by the manners and customs of a foreign people, which are strange to them. They know they will feel foreign in a foreign country, and fear that as foreign they will be isolated. The Englishman wants to remain an Englishman, for reasons which he cannot always express clearly; and also because he finds it pleasanter to live under the social conditions which governed his up-bringing and to which he has grown accustomed. Some races are much more adaptable than others; but, generally speaking, people cling to their national homes like limpets to rocks, whatever their race. It scarcely need be added that, as a rule, the checks on the world migrations of labour are least as between a country and its colonies; and that they are relatively inconsiderable as between two countries one of which has originated as an off-shoot from another, as the United States has from England, so that there is some identity of racial characteristics and a sharing in a common past.

Internationally, capital is not so immobile as

labour, but it is comparatively immobile nevertheless. Many capitalists are timid about investing in industries abroad. They are unwilling to place their money where they cannot watch its use, and under laws and customs with which they are unfamiliar. But improved credit, the spread of information and increased travel (which is breaking down international distrust) have endowed capital with an enormous access of mobility in the last half century.

Differences between Comparative Values cause Foreign Trade.—Two nations cannot enter upon an *enduring* trade with one another unless the *comparative values of things in the one country differ from the comparative values of the same things in the other country.* By *comparative values* is meant the ratios between the values of things.

This doctrine can be proved by examining a single simplified case. We shall imagine, for convenience, that there is no cost of carriage, and that the two countries considered, say England and Germany, have the same kind of money.

Before intercourse is opened, let this be the state of affairs :—

England produces wheat at 1*l.* a quarter ;
„ „ blankets at 2*l.* a pair.
Germany produces wheat at 2*l.* a quarter ;
„ „ blankets at 4*l.* a pair.

Now, if our doctrine be true, no enduring trade

should result when intercourse is opened between England and Germany, because the ratio of 1*l.* to 2*l.* is identical with that of 2*l.* to 4*l.* Trade will begin, but will soon come to an end altogether.

Let us trace what will happen. England, clearly, will export both wheat and blankets, because she produces both at a cost much less than the price she can get for them in Germany. And England will import nothing but money (gold bullion) from Germany. The level of prices will, therefore, rise in England and fall in Germany, because supplies of money will have been increased in England and decreased in Germany. Finally, wheat will cost, say, a little less than 1*l.* 8*s.* in England and a little more in Germany; while blankets will cost a little less than 2*l.* 16*s.* in England and a little more in Germany. Then trade will cease entirely. For, if it proceeded farther, and more money came to England (so that English costs were not appreciably below German costs), English merchants would not get sufficient profit out of exporting to make it worth while.

Next suppose that the initial state of affairs is different. Take it that these are the facts :—

England produces wheat at 1*l.* per quarter;
" " blankets at 1*l.* per pair.
Germany produces wheat at 1*l.* 4*s.* per quarter;
" " blankets at 1*l.* 16*s.* per pair.

Then, for a time, as before, Germany imports both wheat and blankets and exports money. But the time soon comes, as a result of the passage of money from Germany to England, when wheat costs, say, a little less than 1*l.* 2*s.* in England and a little more in Germany; while blankets cost, say, a little less than 1*l.* 2*s.* in England but a little more than 1*l.* 13*s.* in Germany. Then England will cease to export wheat, but will continue the profitable trade of exporting blankets. So yet more money will come to England. In consequence of this, the English costs both of wheat and blankets reach the figure of 1*l.* 4*s.*, suppose. But, meanwhile, costs will have fallen in Germany (which has lost money by exporting it) to, say, 1*l.* for wheat and 1*l.* 10*s.* for blankets. Under these conditions, not only must it pay England to export blankets (which cost 1*l.* 4*s.* a pair at home and can be sold in Germany for 1*l.* 10*s.* a pair), but it must also pay Germany to export wheat (which cost 1*l.* a quarter at home and can be sold in England for 1*l.* 4*s.* a quarter). Here at last are the conditions of enduring trade.

Thus we discover that permanent foreign trade is caused by differences between comparative values, which mean any differences that appear when the ratios between the values of things in one country are compared with the ratios between their values in another country.

Extent of Foreign Trade.—We have learnt from these examples when lasting foreign commerce may be expected and when it may not. But we have not learnt how its amount will be settled in the simplified circumstances imagined above. This we now proceed to consider.

Merchants in both countries would go on increasing the annual amount of trade until it no longer paid them to do so, in view of the changes which the additional trade brought about in the values of the two commodities in the two countries. It would no longer pay them to do so when further trade brought comparative values so close to one another that the difference between them would not be sufficient to remunerate the trader. The annual amount of trade, then, would become such an amount as brought comparative values to this position.

That comparative values can be brought to this position, the reader may assume. But, if he or she is curious to understand why, the following remarks will be found to contain the gist of the reason. After foreign trade has started, costs of production in the two trading countries will almost certainly be affected. For each country will enlarge one of the industries in question and reduce the other; and it is not likely that both industries will, in each country, be subject to constant returns

(see page 36), so that production in either industry in either country is equally economical whether the output is large or small. Besides, if the amount of trade per year became large enough, one of the industries would shrink to nothing in one of the countries; and, further, the other industry might shrink to nothing in the other country.

In the simple examples taken above we have left out cost of carriage and any import and export duties (commonly called tariffs) that there might be. But their introduction does not alter the character of the problem of foreign trade. Still, to be quite exact, in defining comparative values, we must allow for cost of carriage to consumers and also tariffs, where there are any. Nor does the introduction of more countries and more commodities alter the essential character of the problem, though it makes it more complex. The principles of the solution of the problem of foreign trade, in all its actual complexity, are furnished in the treatment of our simplified case above.

It is worth while noticing how very seldom it happens that the production of anything is confined to one country alone. If England exports a commodity to France which is not produced in France, it will usually happen that some third country, with which both England and France trade, will produce

it also. The cases in which a country has a monopoly in the production of anything are limited. Almost always the exporter has to compete, in the market of a foreign country, with the home products of that country, or with the products from a third country.

QUESTIONS (WITH HINTS FOR SOLUTION)

1. *Is it correct to say that labour and capital are absolutely immobile internationally? What bearing, if any, has the immobility of labour and capital internationally on costs of production in different places?*

In dealing with the second part of the question, it should be pointed out that the geographical immobility of the factors in production checks their movement to the places where they would be most highly remunerated. Consequently the costs of production of not a few things are higher in some places than they would be otherwise. When we speak of higher costs of production in this case, of course we mean higher costs on the assumption that the general purchasing-power of money remains as before. This should be indicated.

2. *Fully expound the doctrine which affirms that an enduring foreign trade cannot arise between any two countries unless there is a difference between comparative values.*

To begin with, comparative values must be defined.

3. *Would a reduction in the cost of transportation, and the removal of all import duties, cause an increase or decrease in the quantity of foreign trade?*

The answer to this question should be worked out in detail; and it would be a useful exercise to construct some numerical examples to illustrate it. The key to the answer is that there would be greater differences between comparative values, which set foreign trade on foot, if the charges referred to were reduced or removed.

CHAPTER XV

THE BALANCE OF TRADE AND THE FOREIGN EXCHANGES

Relation between Imports and Exports.—Do exports, and exports only, pay for imports? In the long run they must, when all goods and services, apart from gifts, loans and interest on loans, are included, if people do not fail to meet their current obligations.

This is merely to say that in the long run people's expenditure must equal the value of the goods that they get, apart from gifts, loans and interest on loans, if they do not fail to pay their bills. But, of course, the value of what a person buys or hires any one year need not equal the payments that he makes in that year, because of the existence of credit. Under a strict system of cash on delivery, there would, however, be exact correspondence at all times between a person's receipts in goods and his payments for them.

It must be carefully noticed that gifts, loans and interest on loans, have been excepted in the state-

ment above. Gifts (which, obviously, are not paid for) come into a country from people's relatives and friends who have gone to reside abroad. Most of the gifts may take the form of money; but the money is spent on goods, and the country which has sent the money must ultimately meet the obligations represented by the money and export goods of like value. Debts, and interest on them, are also in the form of money; but, similarly, the money is an earnest of goods to come.

We must not, however, jump to the conclusion that, apart from gifts, loans and interest on loans, there must be correspondence, in the long run, between those imports and exports which officials can watch and record in statistics. To expect this would be as unreasonable as to expect correspondence between a person's expenditure and the tangible things that enter his house. There could not be such correspondence, because, in addition to buying things that come into their houses, people hire services, and spend money on meals and other things when away from home. Similarly, many economic goods are exchanged between people of different countries which are not visibly carried into and out of countries. Such unrecorded goods (including services) are known technically as *invisible imports and exports*.

The officially unrecorded goods and services

provided for Frenchmen, say, by foreign countries are as follows :—

1. Unrecorded valuables which enter France by post.

2. The goods and services which are not directly imported, but are provided for Frenchmen out of France. The balance of trade means the balance of economic obligations conferred by different nations, through their members, upon one another, wherever they are. The Frenchman on a visit to London is still a constituent part of the French nation. Again, there is the provisioning of French ships abroad.

3. Services done for France which are not recorded in the statistics of things imported by France. For example, the sea-carriage done by English ships for French account, and any agency and financial work done in a foreign country for French account.

The figures of English trade show a large balance of imports, because England has made enormous investments abroad, and earns a fortune annually for agency and financial work and shipping services.

Effects of Foreign Loans on Imports and Exports. —A few words may be said here of the effects of foreign loans, to show that we are right in regarding a loan made to a foreign Government, or a foreign business, as a loan of goods.

The loan is first made in money, but the money is borrowed to be spent. Suppose that people in England invest 1,000,000*l.* in Australian industries. Then we may say that England has lent 1,000,000*l.* to Australia. The level of prices is raised in Australia in consequence; and it will not be restored to the normal level till the money has left Australia. It will leave Australia to pay for the balance of imports caused by the high level of prices.

These additional imports, on the part of Australia, may come from anywhere. But if they come from any other country than England, that other country will be so placed, with its extra money got in payment for them, that its exports will be checked and its imports stimulated. Finally, by direct or roundabout trade, the normal level of the world's prices must be recovered through an additional exportation of 1,000,000*l.* of goods from England. Exports from England are encouraged, till this happens, in consequence of the low level to which prices there must have been reduced by the 1,000,000*l.* loan. So we see that in effect, directly or indirectly, England has lent Australia 1,000,000*l.* worth of goods in lending her 1,000,000*l.*

Likewise, when the loan is repaid, if it is ever repaid, it is repaid ultimately in goods,—transparently not in the same goods, but in other goods of the same value.

A similar portrayal of interest payments will reveal that they, too, are in effect payments in goods, though they are made through the medium of money.

The Foreign Exchanges.—Since the currency of one country will not serve as money in another country, most payments in foreign trade are made through the medium of bills of exchange.

Bills of Exchange may be regarded as signed promises to make certain payments for goods, or services, received. They are said to be *drawn* by the people to whom the money is owing and *accepted* by those who owe the money. They are used in both the home and the foreign trade. When drawn on people abroad, they are known as foreign bills. A bill may be payable at sight, or after a certain period. A bill payable after a certain period is said to *attain maturity* when the time arrives for its payment. It is said to be *discounted* on being sold, before it attains maturity, for what it will fetch.

The advantage of using bills in the foreign trade is that, by means of them, many debts can be cancelled out against each other; so that a great deal of carriage of bullion to and fro is avoided. Thus the bill drawn by Schmidt of Berlin on Jones of London for 10,000*l.* can be bought by Schulze of Leipzig, and used by him to pay a debt of 10,000*l.* owing to Robinson of Manchester. In this case, everybody

is paid when Robinson has collected the 10,000*l.* from Jones, directly or indirectly.

When in any country the demand for foreign bills exceeds the supply, their price rises. In the opposite case it falls. But, apart from exceptional circumstances, the price of a bill payable at sight can never depart from its face value by more than the cost of sending the bullion representing its face value. If it did, it would pay to ship bullion. The limits to fluctuations in the prices of bills are known as the upper and lower *specie points*.

When the prices of bills at sight rise above *par* value, that is their face value in bullion, they are said to be at a *premium*. When they fall below *par* value they are said to be at *discount*.

After the cancellation of as much indebtedness as can be cancelled out by means of foreign bills of exchange, the ultimate balance of indebtedness must be discharged by means of bullion.

Questions (with Hints for Solution)

1. *Show how foreign bills of exchange are used for the discharge of international indebtedness; and explain the statement that the ultimate discharge of the balance of indebtedness against a country can be effected only by means of bullion.*

As regards the second part of the question, it is to be noted that the currency of one country is of no use as money in another country. Consequently, for international payments, bullion has to take the place of currency.

2. *If foreign bills were not used, what would be the effect?*

If foreign bills were not used, bullion would have to take their place. Consequently more bullion would be needed for carrying on foreign trade, and there would be less bullion to use for coinage and in the arts. Hence, in each country, the value of bullion in the arts would rise, and the purchasing power of money would rise, because there would be less money. Also it should be noticed that it would be more costly to carry on foreign trade, if more bullion had to be employed in its conduct; and that, consequently, foreign trade would be to some extent discouraged.

3. *Describe and classify what are known as invisible imports and exports, and account for the use of the term 'invisible' in this connexion.*

Invisible imports and exports are not necessarily intangible things, which cannot be seen. They are called invisible because, so to speak, they are invisible to the official eye, in that they cannot easily be recorded in official statistics.

4. *Trace in detail the effect upon British foreign trade of the annual payment to Great Britain of interest on the loans which she has made to various parts of the world.*

This question can be answered by applying the reasoning contained in the second section of the chapter above (pages 104–5).

CHAPTER XVI

RENT

Distribution of Wealth.—That part of economics which explains the earnings of the several factors in production is called the economics of distribution. Some people are born wealthy, while others achieve wealth. The economics of distribution does not aim primarily at showing how, by laws of inheritance or otherwise, it is made easier or more difficult to be born wealthy. It aims primarily at showing why a man's income from his invested wealth is what it is ; and why his earnings are what they are. The economics of distribution, we may say, accounts for the sharing of the wealth produced by a community among the agents, or the owners of the agents, which have been active in its production.

The commonly recognized agents, or factors, in production are land, and other natural agents, labour and capital. The payment for land is usually called rent. The payment for labour is called wages or earnings of management, according

to the nature of the labour; and the payment for the loan of capital is called interest. These payments must now be explained.

We shall begin with payment for land. This, as has been said above and as we all know, is commonly called rent. But it must be remembered that in economics the rent of land means only that part of the gross payment for land which is made for the land alone, apart from any payment for the capital invested in it.

Why is a high rent paid for some land and a low rent for other land, apart from any payment for capital invested in it? Because some land is fertile, or well placed, and other land is relatively unfertile, or ill placed. With a view to making it quite clear that this is the correct answer, some simple cases will have to be examined.

Fertility Rent.—Take the case of farming in a particular country, and suppose that the location of a farm does not matter and that only wheat is grown. The value of land per acre, nevertheless, will not be the same for all plots, because of the diversities between plots in respect of fertility. All land cannot be equally fertile. A limited quantity will have a very high degree of fertility, a certain amount will be less richly endowed with fertility, and some of the land will be hardly cultivable, if cultivable at all.

Ranging the land of the country according to its fertility, let us call the best land quality A, and the next best quality B, and the other land qualities C, D, E, and so on, according to its degree of inferiority.

Now imagine population to be so thin that all the land of the highest quality, namely quality A, is not demanded. In these circumstances, farmers would pay little or nothing for their farm land. If the owners of the farms tried to exact any substantial land rent, their efforts would be frustrated by the owners of other land of quality A which was not being farmed. Farmers would have the option of moving to the virgin soil. They would lose little in doing so, because the land to which they moved would be as fertile as the land from which they retired. The owners of the unoccupied land of quality A would welcome the farmers, and accept them as tenants for an insignificant land rent, because the alternative would be to do nothing with the land and get nothing for it.

Next suppose such a growth of population that the whole of the best land is tilled and recourse must be had to the second best land, that is land of quality B. Instantly, when land B comes into cultivation, the best land will begin to bear a rent. The amount of this rent will be such as to equalize the net earnings of two farmers of equal efficiency and

industry, having normal access to capital, the one of whom farms land of quality A and the other land of quality B. That is to say, the rent of the best land will be the whole of the value of the extra advantages which it possesses in its superior fertility.

The extra advantages of any land, over the worst land in use, are called *differential advantages*, because they make a difference between land values. The worst land in use is known as the land of *marginal fertility*, and all superior land as land of *super-marginal fertility*. It is also said that *the margin of cultivation falls* when land comes into use which is inferior to the worst previously used.

The best land will be more intensively cultivated (that is to say more capital and labour will be used in working it) when the land of secondary quality comes into cultivation. This is a significant point which must not be lost sight of. A farmer who can get only a limited quantity of the richest land, and must have recourse to inferior soil, will apply more labour and capital than it received before to the superior soil, at the same time that he applies labour and capital to the fresh land which is inferior. He will do so because it will pay him to work different kinds of land to such degrees of intensity respectively that their marginal returns (meaning the additions made to the returns through the last units of expenditure devoted to working them) will

be equal. Here we have another example of the law of substitution or equi-marginal returns, which is fully dealt with on pages 11–14 and 33–4.

If population still advanced, so that the margin of cultivation dropped again and farming covered land of third-rate quality, the land of secondary quality would begin to bear a rent. This rent would be determined exactly in the same way as the rent of the best land was determined in the case already discussed. The land of secondary quality would, in its turn, be worked more intensively than it had been before. And the best land would be cultivated yet more intensively, and its rent would rise. The rent of the very best land would now be settled by reference to earnings on third-rate land (the new marginal land), just as it had been settled previously by reference to earnings on second-rate land.

Effects of Progress.—The fact that, as time flows on, and population increases, if it does, the price of food does not rise as a rule, is not inconsistent with the foregoing. There is a retarding influence, namely economic progress (see page 35). Inventions and productive improvements punctuate the passage of time. The control exercised by nature over man, through decreasing returns, is eternally evaded through progress, and man's control over nature becomes more complete. Progress may teach how intractable soil can be persuaded to

yield abundant harvests. And it is not always the land which turns out best ultimately which is worked first. Moreover, time brings development in the means of transport, which makes distant lands more accessible.

The Worst Land may Bear a Rent.—Let us now imagine that all the land has come into cultivation, and that there is still demand for more land, so that recourse would be had to yet worse land than the worst in the country, if such land were to be found. It does not follow, however, that no more food can be obtained. Although the importation of food may be impossible, it is possible to raise additional supplies of food in the country by more intensive cultivation. All the land, therefore, will be more intensively cultivated, that is to say more labour and capital will be applied to the land per acre. The result of this more intensive cultivation will be that the worst land will bear a rent, while the rents of the superior lands will rise.

Why will the worst land pay a rent? As population became denser, the demand for food would rise. And as, in the circumstances supposed, nature could only be enticed by increasingly lavish outlays of labour and capital to yield additional food, the price of food would rise. This rise in the price of food would place farmers in a relatively better position than before, even in respect of much of

the work done by them on the worst land. Then the competition for land would become keener; and would, obviously, bring it about that the value of the improved relative position of the farmer would have to be paid over to the landlord in the shape of rent.

Fortunately, the world is not in such a position as yet (and probably never will be) that the worst land in the worst position has any present value. There is plenty of land to be had in the thinly peopled parts of the world. The fact that this unworked land is far removed from the centres with the greatest density of population brings it about that land in proximity to those centres bears a high situational rent, the determination of which we shall consider soon.

The important question of the bearing of rent on the price of natural products must be reserved for the next chapter.

Questions (with Hints for Solution)

1. *What would be the effect on rent if population increased considerably in a well-populated country and the importation of agricultural products was prevented?*

As population grew, land less suitable for agricultural and other purposes would have to be brought into use. Consequently the rent of the other land in use would rise. This should be shown in detail. Finally a few words should be said to show that the rise in rent might be checked or

stopped, for a time at any rate, by improvements which rendered less suitable land more suitable.

2. *Define the following terms and indicate their uses :— Differential Advantages ; Marginal Fertility ; Super-marginal Fertility ; the Margin of Cultivation.*

3. *Under what conditions might it come about that an appreciable rent would have to be paid for all land ?*

The point raised in this question is discussed in the concluding section of the chapter above.

CHAPTER XVII

RENT (*CONTINUED*) AND AGRICULTURAL SYSTEMS

Situational Rent.—Even were all farming subsistence farming, the locality of some farms would be preferable to that of others. And locality becomes of immense importance when people farm, not merely, or exclusively, for subsistence, but with a view to selling their produce. For, when they have to sell their produce, in selecting a farm, they must take into account, not only the expense of carrying what is needed to the farm, but also the expense of carrying their produce to market.

Take two parcels of land of the same size which are equally fertile, and suppose that one parcel is the most inconveniently placed of all the land of that quality in the country which is used. An extra rent will obviously be paid for the parcel of land in the more favourable locality; and the amount of this excess will, as obviously, be governed by the total value of the land's situational advantages.

The rent of building sites depends almost exclusively upon the relative situational advantages of different sites.

It may be noted in this connexion that land will tend to be put to its most profitable use. If a piece of land will yield a rent of 5*l.* an acre for agriculture and 10*l.* a year for building, it will be used for building.

Rent of Mines, Quarries, and Fisheries.—*Mines* and *quarries* get exhausted after a time. They cannot yield supplies year after year indefinitely, as land can, if it is properly worked. Consequently, some of the so-called rent paid for mines or quarries may be of the nature of the price paid for things that are scarce. A payment of this nature appears when the mines or quarries are limited in relation to the demand for the stores locked up in them. But situational rents, and charges similar to fertility rents, enter into the payments for many mines and quarries, because some mines and quarries are easier to work than others, and some are better placed than others.

Payments for mines and quarries are usually made in the form of charges per unit of output. Such charges are called *royalties*.

Fisheries, when properly worked, need not get exhausted. New fish appear in sufficient numbers to fill the place of those caught, if the annual catch

does not so reduce supplies that the original numbers cannot be restored by breeding. When fisheries are worked so as to last as they are indefinitely, their annual value is strictly analogous to the annual value of land.

Personal Rents.—Such parts of people's earnings as are attributable to differences in capacity are called 'personal rents.' They are so called because they are analogous to the payments made for land on account of its differential advantages. One employer can get more value out of his factors in production than another, and can manage a larger business. He, therefore, makes more than the other. If the other employer is marginal (that is only just capable enough to be an employer), the excess of the former's earnings is called a personal rent. Similarly a very clever doctor will make more than a doctor of marginal capacity.

As there are great differences between employers in respect of their capacity, and between different parcels of land in respect of their fertility or situational conveniences, so there are great differences in respect of efficiency and application between employees of the same grade. These differences between employees are differential advantages in production; and as differential productive advantages they have value. A specially rapid and skilful worker will tend to get an extra wage, over and above

that earned by the worker of marginal capacity in his trade; provided that the payment of this extra wage is not prevented by regulation or custom. This extra remuneration measures the value of his differential advantages in production. Hence there is a rent element in wages, as well as in profits.

Rent Does not Determine Price.—The general correctness of the statement that a true rent does not enter as a determining factor into price, may be made apparent with the aid of examples.

Had not farmers to pay any economic rent for land, they would nevertheless charge as much for wheat, and produce as much. Were they to charge a little less for wheat, it would no longer pay them to cultivate the worst land, or to work other land so intensively. But, if they acted accordingly, and consequently reduced the amount of wheat grown, the demand of consumers would send up price again to the old level, so that the old amount of wheat would be raised. So, in this case, rent has obviously no influence on price.

Consider again the different prices of the same things in different shops. When a shopkeeper in a favourable situation charges more for his goods than another equally efficient shopkeeper in an unfavourable situation, he is not enabled to do so because he pays a higher rent. Customers would not pay his high prices were there no other

reason for doing so than that he paid a high rent. The fact of the matter is, as examination will show, that a sufficient number of customers to keep him fully employed are willing to pay somewhat higher prices for the convenience of stopping where his shop is. Then he is forced by competition to pay the higher rent, because he can make a bigger income than the other shopkeeper, whom we suppose to be his equal in ability. So in this case, again, rent has obviously no influence on price. And in no other ordinary case can it be made out that true rent governs price.

Agricultural Systems.—In conclusion a few words may be said of agricultural systems. It is not in every country that land is let for competitive rents. There are many other systems.

The simplest system is for the cultivator to own the land which he cultivates. It is known as *peasant proprietorship*. It has its advantages—'give a man secure tenure of a rock and he will turn it into a garden, give him a nine years' lease of a garden and he will turn it into a desert.' But it has its disadvantages also: and both advantages and disadvantages are relative to other conditions.

Peasant proprietorship insures that attention shall be paid to the land. It cannot, however, insure that the land shall be treated in an enlightened fashion and with adequate capital. And, when it is

not supplemented with some form of co-operation, a deplorable lack of economy in marketing, and in the distribution of the produce, results. Moreover, under peasant proprietorship, able men find it difficult, or prohibitively costly, to get enough land. And finally there is a fear of excessive division of holdings.

Metayage is another system which is found among cultivators on a small scale. Under it the landowner furnishes a portion, if not the whole, of the capital; and the character and extent of the cultivation is made a matter of arrangement between him and the cultivator, who is called the metayer. Though the cultivator's liberty is restricted, his enterprise may actually be stimulated and given opportunities by a good landowner.

The landowner under the metayage system receives in payment for the land some agreed proportion of the produce. Similarly, in America it is common for the hiring-charge for land to be a proportion of the harvest.

The *leasehold* system means letting land for a term of years at a fixed annual rent. The cultivator who is a leaseholder is left with a freer hand than the metayer. Nevertheless he is seldom permitted to alter the character of his farm (for instance by breaking up pasture) without the consent of his landlord; and is naturally required to keep the state

of the property up to a certain level. Whether the greater liberty which the leaseholder enjoys is a gain or a loss from the public point of view, or his own, depends upon the initiative, resourcefulness, and knowledge of the cultivators. Freedom to make endless mistakes and muddle into embarrassments is a doubtful boon.

For the attainment of the most fruitful results from the leasehold system, it is essential that the land should be leased for a period which is lengthy enough to make it worth the farmer's while to spend himself and his resources liberally upon the land.

With all its good points, the ordinary leasehold plan is unsuited to the remote districts of new countries where farms have to be made out of rough land. A large reward must be offered to persuade the cultivator to endure the toils and discomforts, and face the dangers and solitude, of the pioneer.

Questions (with Hints for Solution)

1. *Consider the extent to which the theory of rent is applicable to payments for mines, quarries, and fisheries.*

2. *In what sense is it true to say that rent does not enter into price?*

Rent enters into price in the sense that it is paid out of the aggregate of the prices received for the things produced with the aid of the factor in receipt of the rent. But it does not enter into price in the sense that it determines the amount of the price (see the fourth section above).

3. *Show that the doctrine of rent explains the high incomes obtained by exceptionally able employers and professional men.*

In the answer to this question, it should be pointed out, incidentally, that any unusually high earnings obtained by very efficient workpeople can be explained similarly.

4. *Consider the advantages and disadvantages of peasant proprietorship, metayage, and the leasehold system.*

CHAPTER XVIII

INTEREST ON CAPITAL

Nature of Interest.—We have learnt that capital consists in the goods which are used for the production of other goods (see page 27). The prices of these goods, as of all purchasable things, are settled by the forces of demand and supply (as explained in Chapter IX.). But the person who uses them need not buy them. He may borrow them from others. When he does so, he makes an annual payment for their use which is called interest. It is a payment not for the purchase of the capital goods outright, but for the loan of them.

It is necessary to make this interest payment, as we shall learn, in order to induce people to spend money in accumulating capital goods, instead of spending all their money on themselves. In the absence of the inducement of interest, a country would not get enough capital. We may speak of interest, then, as a payment for deferring consumption, or waiting.

We must now alter, to a slight extent, this elementary way of looking at things, in order to bring it into correspondence with actual affairs. As a rule, it is not the capital goods which are lent to the producer, but sums of money representing their value. So a loan of capital becomes a loan of money. But the money is spent on the capital goods, and thus becomes in effect a loan of the goods.

Again, all capital is not loaned since some producers are working with their own capital. But we may appropriately think of such producers as lending capital to themselves. Of course, whether a person saves to lend or to use his savings in production, there is equally deferment of personal expenditure; so that the question of payment for waiting equally comes in.

Gross and Net Interest.—It will be as well to point out at once that 'interest' is an ambiguous term in economics. It may mean gross interest or net interest.

Gross interest varies from business to business. It includes :—

1. Payment for the loan of capital, when there is no risk and the lender is not put to any trouble. This is *net interest.*

2. Payment to cover risks of loss.

3. Payment for the work and worry involved

in watching investments, calling them in, and re-investing.

These payments will now be illustrated with comments.

When money is lent to a business man, without his pledging property to cover its value beyond doubt, certain risks are run. The borrower may prove dishonest or incapable. Hence, there is a personal risk.

Moreover the business in which the borrower is engaged is bound to be in some degree speculative. Hence there is a business risk. Some businesses are more speculative than others. Taking up a new invention may be highly speculative. And even the most humdrum of businesses are risky to some exent. No business can be certain of always passing unscathed through industrial and commercial changes. Risky businesses, consequently, have to pay a higher gross interest for capital than moderately safe businesses.

Competition settles in a rough fashion the level of payments to cover business risks. Payments against risk are not, of course, made separately, but are merged in gross interest.

Frequently the explanation of the very high rates of interest charged sometimes is that the lender is called upon to do a great deal of work. A large part of the interest paid to a pawnbroker is due to him for the work that he does.

After full allowance has been made for those parts of gross interest which are required to cover risk and recompense the lender for his trouble, a balance is left over. This balance is what is termed 'pure interest' or 'net interest.' The rate of interest paid on Government Stock of the highest repute is the nearest approach to it.

Demand for Capital.—Our next purpose will be to explain the rate of pure interest. It is settled by the demand for capital and the supply of capital, as we shall learn. We may begin our examination by considering the demand for capital.

Take the case of a cabinet maker who possesses only a few necessary tools. Suppose he produces enough furniture annually to yield him net earnings of 50*l.* a year. He could largely increase this if he had more tools and some simple machinery. Let us suppose that 100*l.* spent on tools and machinery would increase his income by 50*l.* a year. Let us suppose, further, that, by setting aside 10*l.* a year, he provides a fund sufficient to keep the tools and machinery in repair and renew them when they wear out. Then 100*l.* of capital is worth to him 50*l.* a year less 10*l.* a year for upkeep and renewals, that is, 40*l.* a year net. Another 100*l.* would be worth less than 40*l.* a year, inasmuch as he would devote the first 100*l.* to satisfying his most urgent requirements. But a second 100*l.* of capital would

still be worth a great deal, say 30*l.* a year net. Similarly another 100*l.* would make a difference of something less than 30*l.* to his net income; and yet another 100*l.* of capital would still have value to him, though a less value, and so on.

The figures stating these values (which are technically called the marginal values of different quantities of capital to this cabinet maker) express the cabinet maker's demand for capital.

Other producers similarly have uses for capital. When we combine the demands of all of them, we get the total demand for capital in the community. This makes up the bulk of the demand for saved wealth, but not the whole of it. To get the whole demand, we must add to the productive demand the demand of people who want to borrow money to spend on themselves and not on production.

Causes of Saving.—We have next to account for the saving from which capital is derived. People save, not only with a view to getting an income in the form of interest, but also with a view to providing against a rainy day and future obligations; and, in addition, with a view to having resources to enable them to better themselves. When the rate of interest rises, people are commonly induced to save more: and it goes without saying that

the amount of saving increases when people get wealthier, because they have more from which to save.

By the 'supply prices of capital' we mean the rates of interest at which different amounts of capital will be saved annually.

Interaction of Demand and Supply.—After having analyzed the conditions of demand and supply, it is a matter of no difficulty to perceive how they act upon one another and produce a market rate of interest. Consider the table below in which examples of demand and supply are placed side by side; and suppose, for the sake of argument, that none of the incidents which make gross interest greater than net interest (see the second section of this chapter) need be taken into account.

Net Rate of Interest.	Annual Savings in Million *l.*	Demand for New Capital in Million *l.*
0	15	100
1	20	70
2	40	60
3	50	50
4	55	45
5	60	40

In the circumstances represented in the table, it is at 3 per cent. that equal quantities of capital are demanded and supplied. So 3 per cent. will

become the market rate of interest in the circumstances supposed.

To make our demonstration complete, by allowing for the extra payments included in gross interest, we should have to deal separately with the various cases in which capital was needed. For each case the demand prices would express the amounts demanded at different rates of gross interest; while the supply prices would express the amounts that would be supplied at different rates of gross interest.

Questions (with Hints for Solution)

1. *Distinguish between gross interest and net interest, and account for the differences between them in different cases.*

2. *Account for the payment of interest, and explain the statement that the rate of interest is settled by demand and supply.*

In answering this question, the student must explain why people are willing to pay for loans of money. He must also indicate the influences governing the supply of capital. Finally, the way in which a rate of interest is arrived at through the demand forces on the one side and the supply forces on the other side, must be clearly set forth.

3. *If no interest were paid, would all saving cease?*

It will be seen, on reading the last section but one in the chapter above, that saving for certain purposes would continue in the case supposed. The purposes for which saving would continue must be particularized; and why saving for these purposes would continue must be explained.

4. *Consider whether the law of diminishing utility applies to the use of capital.*

To enable him to deal with this question satisfactorily, the student should read what has been said about the law of diminishing utility on pages 7–9, and then consider the contents of the third section of the chapter above (pages 128–9).

CHAPTER XIX

WAGES AND THE EARNINGS OF EMPLOYERS

THE subjects of wages and the earnings of employers for the work that they do are best taken together. Both are payments for living agents in production; and the supplies of labour and of organizing power are linked together.

Earnings of Independent Labour.—Let us begin our examination with the simple case of the producer who works alone. Suppose the thing made is furniture. In such a case, the earnings of a cabinet maker would be the total market value of what he produced, less the expenses incurred in his work, such as outlay on wood, rent of premises, and interest on such capital as he possessed or had borrowed.

Wages and Employment under Simple Conditions.—Now imagine that somebody thinks of employing a number of cabinet makers, providing them with tools, paying them wages, and selling their product. If he did so, and left them to work

just as they had done before, it would not prove worth his while. For he would make no income for himself. The cabinet makers would turn out about as much per head as they had turned out previously ; and the employer could not pay them any less than they had earned previously, because, if he did, they would prefer to work on their own account.

The employer could, however, make it worth his while to employ them, and worth their while to be employed, provided he could raise their output per head. And he could do so in various ways ; as we have perceived in considering the economies of group production. He might, for instance, so arrange the work of his hands as to secure a high degree of division of labour in his factory. And, if he were wealthy, or enjoyed good credit, he could certainly augment the productivity of his employees by furnishing them with more capital per head than they had normally worked with when independent.

It would, therefore, be possible for our employer to offer weekly wages which would improve the monetary position of those who accepted them, and yet leave him with substantial profits, after deducting interest on his capital.

Our imaginary first employer will pay just as much as is needed to induce as many cabinet makers as he wants to join him. Suppose he can get all the labour that he wants at a wage of 30*s*. We have

then to consider how many people he will want. He would not want an indefinite number of cabinet makers at 30*s.* a week each. For, after he had engaged a certain number, he would find that engaging more would bring him in less than their wages, because as his business grew it would become less manageable (see pages 31–3).

Now it should be immediately apparent that our employer will want just so many men that the addition of another man would increase his returns by no more than the wage paid, which is supposed to be 30*s.* a week. That is to say, in the technical language of economics, the employer will tend to enlist labour until its marginal worth to him amounts to no more than the wage paid. In short, he will tend to act just as we all do in buying things of which we want a quantity. But actually, as we shall see later, the employer is not likely to reckon up his wants very accurately.

As regards the remuneration of the employer for the work that he does, this will evidently be the aggregate value of the output, less interest on capital, wages and other expenses. Interest on capital will, of course, be paid, in whole or in part, to himself when he is a capitalist as well as an employer, as he is pretty certain to be.

Effects of Competition for Labour on Wages.— We may now advance a step nearer to actual

affairs by supposing that there are more employers or would-be employers. In this event there might not be enough labour, willing to do cabinet making at 30*s.* a week (the wage supposed to be reached in the simple case treated above), for employers to get all the labour they wanted at a wage of 30*s.* Then, in out-bidding one another to entice labour, they would force up wages.

Finally, suppose a state of settlement is reached at which there are 100 employers, who absorb all who are willing to be cabinet makers at the wage brought about by competition for labour, say 2*l.* a week. This wage, according to the demonstration above, will tend to equal the marginal worth of the labour, under the conditions supposed. If it were more, employers would dismiss men. If it were less, they would try to get more men, and so, by their competition, force wages up still more.

Seemingly, then, *the wage of the workman tends always to equal his marginal worth* under the conditions prevailing. But, as we shall see later, the equivalence between wages and the marginal worth of labour is only very roughly attained. And it must not be overlooked that what the marginal worth of labour is in any industry depends upon the supply of labour for the industry, as well as upon other things. In the next chapter we

shall deal with the question of the supplies of labour available for different purposes.

Employers' Earnings under Competition. — Now, in the circumstances imagined, there being 100 employers, let us suppose that each employer is left with 10*l.* a week for himself, after paying wages, interest on capital, and other charges. The 10*l.* a week, which is the residue after payment of all costs of production, makes up his earnings for the work that he does.

This 10*l.* a week should about equal the supply price of employers (that is, the income for which they will be willing to do the work of employing) when there are 100. If it were more than this supply price, more people would be attracted to the business of employing in the trade, and employers' earnings would fall. If it were less, fewer people would be attracted to give employment in the trade, and the earnings of employers would rise.

Thus, the earnings of employers tend to be settled by their supply prices of themselves (or what they will work for) and the incomes to be made when different numbers of employers are in the field.

Differences between Employers' Earnings.—We have supposed that those aspiring to be employers are all equally well equipped with ability of the

right sort, control over capital, and perseverance. This, of course, cannot be, as the most limited acquaintance with human nature will persuade us.

So we must say that the would-be employers who survive in the competitive struggle tend to be those who are the best equipped generally for their work. In the imaginary case with which we have dealt, more than 100 men would be willing to do the work of employing. But only 100, we suppose, are sufficiently equipped with brains, character, and control over capital (much of which can be borrowed) to make enough money to induce them to do it. Aspirants other than the successful 100 are squeezed out by competition.

Between established employers, there will be great differences in respect of efficiency. Partly because of these differences, in any given industry, all businesses (even if fully grown) will not be of the same size, and all employers will not earn the same incomes. Differences between the earnings of employers, caused by differences in efficiency, are, as we have seen, of the nature of rent and may be called 'personal rents.' Similarly, superior workmen will tend to earn more than inferior workmen; and any such excess earnings are equally personal rents.

The earnings of employers for the work that they do are sometimes called 'profits.' But

'profits' is an ambiguous term, which is frequently used to signify gross interest as well as the earnings of the employer for his work.

Questions (with Hints for Solution)

1. *Demonstrate fully that all labour tends to receive as its wages its marginal worth.*

The student must begin by defining marginal worth. It is important always to insist that economic theories only work out very much in the rough in actual affairs.

2. *Show in detail* (a) *how an employer's earnings are made,* (b) *the way in which the amount of his earnings is governed.*

When the term 'earnings' is used broadly, an employer's earnings include interest on any of his own capital in his business, as well as what he makes over and above this. Apart from interest, an employer's earnings come out of the economies created by organization. But under competition some part of the advantages of organization are gained by labour. The amount of an employer's earnings is settled to some extent by the supply of employers. This, however, must be shown in detail. In the chapter above, the answer is contained in full.

CHAPTER XX

WAGES (*CONTINUED*)

We have learnt what constitutes the demand for labour, and how it helps to settle the wages of labour. To repeat, the demand of employers for labour measures the marginal worth to employers of different quantities of labour. But it is not this demand alone which fixes wages. It is true that the workmen tends to get as wages their marginal worth. But, what the marginal worth of labour in any industry is, depends, to some extent, upon what the supplies of labour in the industry are.

We have now to learn how the supplies of labour offered in different industries are determined ; and how differences in wages in different industries are brought about.

Grades of Labour.—The labour of a country is not all of one sort. We may think of it as divided up into a number of grades or classes. Thus, there are (1) unskilled labourers, (2) skilled artisans, (3) the lower middle classes, (4) the upper middle classes,

and (5) the wealthier, or predominantly capitalistic, classes.

Now, the position of any person in the labour grades of the community is settled in part by the position of his parents, in part by his capacity, in part by his enterprise, and in part by the incomes to be made in the different grades. The extent to which it is settled by his capacity depends upon the extent to which parents are ambitious for their children; the extent to which parents have the means, and the requisite knowledge, to prepare their children for better positions than those occupied by themselves; and the extent to which educational facilities are offered to the rising generation.

To each grade of labour a number of occupations are open. The occupations open to each grade are those which require about equal amounts of ability and endurance. A child still inclines to follow his father's calling; but, under modern conditions, it is almost as easy for him to enter any of the callings which effectively appeal to the class to which the father belongs. The relative supplies of labour in each trade of the same grade depend upon many conditions which will be considered in the next section. One of these conditions is the relative wages paid.

Differences of Wages within each Grade.—In so far as the trades filled from one grade of labour

are equally pleasant, labour will tend to be so distributed between them that the wages paid are the same. If, in one of such equally pleasant trades, lower wages were paid than in others, the flow of youthful labour into it would be checked. This check would continue until the numbers in the trade had dwindled by such a percentage that the wages paid in it rose again to the normal level. It must be added that, in some degree, the adult workpeople in a trade may find it possible to transfer themselves to another trade when their wages fall; though, in a large degree, they are prevented from doing so because they have been specialized to a particular kind of work.

In so far as the different kinds of work offered to labour of one grade differed in agreeableness, there would be differences in wages; because, other things being equal, people choose the most comfortable situations. To get barely adequate supplies of labour employers in the industries in which work was disagreeable would be compelled to offer wages somewhat above the normal level for the kind of labour that they wanted. And, to get more labour, they would probably have to offer more.

The wages in different occupations in the same grade will also tend to vary with the cost and length of training required, and the probability of success and of regular work.

When the relative numbers of workpeople in trades of the same grade can be rapidly altered by movements of labour between them, it is said technically that the degree of *horizontal trade mobility* of labour is high, as we have seen (page 22). This kind of mobility, as we have also seen, must be distinguished from *geographical mobility*, which refers to the degree in which the population is attracted from place to place by the prospects of better wages. The degree of horizontal trade mobility of the rising generation is high, because, in the plastic age, a person can easily take up any one of the occupations for which he is suited.

Wages in Different Grades.—The general level of wages in any grade of labour is settled by the relative abundance or scarcity of labour within that grade, in view of the relative demand for that kind of labour. Moreover, to some extent, the level of earnings within a grade (in relation to the levels of earnings in the grades above it and below it) govern the proportion of the population within that grade. For people naturally try to get into the best paid grades. But it must be remembered that everybody is not suited by his capacity to be in a high grade. Consequently, however high the degree of vertical mobility of labour, differences between the earnings in different grades are to be expected.

The degree of ease with which labour can move from grade to grade, when not debarred by limitations of capacity, is what is known as the degree of *vertical mobility* of labour (see page 22). It is probably slight among older people. And it is not so great among younger people as it is possible to make it.

It should need no proof that the more easily people move vertically to the kind of work suited to their capacities, the better is it for society as a whole. The man who gets on, and by getting on adds to the supply of organizing power, or supplants somebody else who otherwise would have filled his position less satisfactorily, benefits not only himself, but also the community at whose disposal his superior services are placed.

Conclusions as regards the Determination of Wages.—In the two sections above, the conditions governing the supplies of labour which are offered to the different industries have been brought out. These conditions of supply, taken in conjunction with the conditions of the demand for labour (analyzed in the previous chapter), account for the wages paid in the several industries of the country. Our final conclusion, which should hold approximately, is that *in any trade the quantity of labour employed will be that quantity for which the supply price and the demand price (which expresses*

the marginal worth of labour to employers) are the same amount, and that this amount is the wage.

The meaning of the *supply price* for a given quantity of labour for a given trade should be apparent after the discussion in the two previous sections. But a few additional words will not be out of place.

Labour is said to have supply prices for each trade because, at different prices of labour (meaning wages), different quantities of labour will be obtainable for any given trade. The reasons are those stated above. The higher the wage, the more completely is any distaste for a trade, or any unwillingness to undergo needful training, overcome; so that more people are attracted into it. And, the higher the wage in a trade, the greater is the inducement to people to struggle into the grade to which it belongs.

It should be added that the supply of labour as a whole depends upon the wages paid. But it must not be supposed that wages must fall when population grows. If, at the same time, the volume of capital increases proportionally, a fall in wages would be very unlikely. It could only take place if the larger population caused the prices of natural products to rise in a degree sufficient to counteract any economies in manufacturing which the larger population rendered possible.

It is worth while re-emphasising here that, when capital increases, the general level of wages always tends to rise. For, the more mechanical aids there are to assist labour, the higher must be its product; and, with an increase of capital, the rate of interest on capital must tend to fall. It is also worth while pointing out that new inventions, in adding to productivity, are almost certain to raise wages. And so are the various means by which the efficiency of labour is increased.

Collective Bargaining and Labour Exchanges.— It must be remarked that the operation of the principles expounded above is retarded, in some degree, by such things as ignorance, inertness, timidity, and the trammels of custom (or, as we may put it generally, by *social friction*).

Actually, moreover, the level of wages in many trades is affected, to some extent, by the action of trade unions and employers' associations. In advanced communities the system of settling wages, and the hours and conditions of labour, through the medium of such organizations is widespread. This system is known as *collective bargaining*. The tracing of its effects is too difficult to be undertaken here. But collective bargaining must result, at any rate, in greater uniformity of conditions.

The trade union in any trade also serves as an

agency or bringing together the demand for labour and supply of labour in the trade. Similar work is also done by *labour exchanges*, which aim at bringing together demand and supply with reference to labour generally.

A labour exchange is a registry office for workpeople and employers. Each exchange is kept in communication with others, so that the man who applies at one place for work may be told of the work to be had, not only in the place where he is (where there may be none), but also in other places. Labour exchanges facilitate the operation of demand and supply with reference to labour, just as cotton exchanges, or corn exchanges, or stock exchanges, facilitate the operation of demand and supply with reference to cotton, corn, or stocks and shares, as the case may be.

Nominal Wages and Real Wages. — In considering the question of wages the distinction between nominal wages and real wages must be drawn. *Nominal wages* mean money wages; and *real wages* mean what money wages will buy. Money wages might remain unaltered, but nevertheless real wages might rise. For the prices of things on which wages were spent might generally fall. The important thing, from the point of view of the workman, is the level, not of money wages, but of real wages.

In what has been said above about the effects on wages of population, capital and so forth, their effects on real wages has been meant.

Questions (with Hints for Solution)

1. *Account for the differences between the wages earned by the labour within one grade.*

The meaning of grade of labour must be made clear; and, to the causes of differences in wages within one grade given in the above chapter, the student must add such causes as differences in efficiency (see pages 119–20).

2. *Define the terms* '*Horizontal Mobility*,' '*Trade Mobility*,' '*Geographical Mobility*,' *and* '*Vertical Mobility*,' *with reference to labour; and indicate the advantages* (a) *to the workman,* (b) *to the community, of these various kinds of mobility.*

Workmen, on the whole, tend to get higher wages when they can move easily to the better paid callings and the places where wages are highest. The amount of wealth produced in a community is, obviously, greatest when every person is doing the work for which his labour has the highest value; since this is the work which is most needed, as its high value indicates.

3. *Show that the advantages which accrue from well-organized markets are equally apparent in the case of the labour market.*

To answer this question fully, the student should read again what has been said on page 42 and then think over the contents of the last section of the chapter above.

CHAPTER XXI

METHODS OF PAYING WAGES AND SETTLING DISPUTES

Piece-rates, Time-rates, and Premium Systems.—The workman is paid according to a *time-rate* when he gets so much per hour, per day, or per week, whatever the variations in his output. He is paid according to a *piece-rate* when he gets so much per unit of output, regardless of variations in the time taken over the production of each unit.

The defect of the time-rate is that the workman is not induced to do his best. The defect of the simple piece-rate is that he is induced to rush, perhaps to the detriment of his health, perhaps to the deterioration of his work. Premium systems have been tried to cure the defects of piece-rates without sacrificing their advantages.

The idea of the *premium system* (of which there are many varieties) is that a standard output should be agreed upon, and that, for any excess of output beyond this amount, lower piece-rates, perhaps progressively lower piece-rates, should be paid.

When the rates for the extra outputs progressively diminish as outputs increase, the incentive to increase them still more is diminished. There is, therefore, less chance of the operative's scamping his work or over-working.

Which system of wages is best depends upon the character of the industry. Piece-rates cannot be designed in all industries. And in some industries the quantity of the output cannot be controlled by the workman in any appreciable degree. In some industries, again, the quality of the output is a matter of fundamental importance; in others it is not; and in yet others the workman cannot affect the quality of the output.

The system of assigning a task to a group of men, and paying so much for the whole job, may be called the system of *group piece-rates*. It has met with marked success in many undertakings. An important condition of its success is that the group should be limited in size, so that the individual incentive may be strong and the influence exerted by each person may tell.

Sliding-scales and Profit-sharing.—The sliding-scale is an arrangement for regulating wages according to the profitableness of the industry to which they relate; so that wages rise as profits rise and fall as profits fall. It has its defects and strong points; and in some trades it is difficult to apply.

The sliding-scale used to be exceedingly popular in England some years ago, but it has become much less so, and is seldom met with at the present time.

Sliding-scale arrangements might be described broadly as profit-sharing, because they arrange for a slide of wages with the profitableness of an industry. But the term *profit-sharing* is commonly reserved for the sharing of the wage-earners in the profits of particular firms.

Profit-sharing proper tends to win for a business the devotion of its employees to its interests. It is of especial value in those businesses in which such devotion has a high value—where carefulness on the part of the employees of a firm saves waste, or consolidates and adds to the firm's connexion. It is naturally denounced by organized labour when it undermines the worker's independence, or is so arranged as to enable an incompetent firm to survive at the expense of wages.

Joint Wages Boards.—It has become increasingly the custom for trades to have joint wages boards, representative of employers and employees (and perhaps with an impartial chairman). They meet periodically, or when need arises, for the purpose of discussing proposals for altering wages or the working conditions of labour. These boards educate both employers and employees, so that failures to agree become less common. Members

of the boards learn to keep their tempers and concentrate their attention dispassionately on the points at issue. Where there is a joint board it is understood that there shall be no strike or lock-out over any matter in dispute before it has been laid before the board.

Conciliation.—Most trades have not got joint boards; and few joint boards are constituted under an agreement which provides for a compulsory resort to arbitration. And disagreements about wages and the conditions of labour rapidly generate heat, which frequently causes strikes or lock-outs before negotiation has had time to reach a settlement. Hence general conciliation boards, and mediation by persons of influence, have been tried with success.

The good mediator does his work by inducing the interested parties to debate points again in a spirit of patience, and by keeping them negotiating until they hit upon a working agreement. He may offer fruitful suggestions, propose compromises and plead his views, without seeming to push himself into the position of an arbitrator. Within recent years every leading country has taken steps, by legislation or otherwise, to promote methods of industrial peace.

Industrial Arbitration.—Turning to arbitration proper, we must draw a dividing line between the

interpretation of existing labour contracts and the arrangement of new contracts. In the case of the former no fundamental objections can be raised against a general resort to arbitration. If the contract is held to have implied what one party never really intended, at the proper time the contract can be set aside. In Germany and France there have existed for many years industrial courts for the settlement of most disputes of this kind, together with other disagreements of a trivial character.

Arbitration, when new contracts are being proposed, is more awkward. The questions in dispute are indeterminate from the legal point of view. Yet it is frequently better, if conciliation fails, to refer the matter for decision to some person with wide experience, sound common sense and an impartial mind, rather than to incur the loss and suffering which a strike or lock-out would inevitably entail.

The prohibition of strikes and lock-outs, and compulsory resort to the decision of a majority of a wages board, or to the pronouncement of a judge or arbitrator, is being tried in New Zealand and Australia. It remains to be seen how it will work in the long run.

One difficulty is naturally the enforcement of awards if they are resisted. Another (which would be more serious in a large industrial country

such as England) is the difficulty of finding out what wages in any industry should be, in relation to those in other industries, in view of the relative demands for the products of different industries. In fundamental industries, upon the steady activity of which the whole community is peculiarly dependent—for instance transportation—there is most to be said for the system of compulsory arbitration.

Drastic action is another matter where the conditions of labour are wretched, and where the forces which ordinarily ensure that the conditions of labour shall be at least tolerable are acting only very feebly.

Questions (with Hints for Solution)

1. *Consider the advantages and disadvantages of piece-rates, time-rates, and premium systems of paying wages.*

The terms used should first be defined. It should be noted that the advantages and disadvantages of the various systems depend upon the character of the industry. In some industries it is not easy to split up the work so that a piece-rate can be paid; and in some industries the disadvantages of a piece-rate, or a time-rate, are much less than in other industries. And, obviously, the quality of the output is a more serious consideration in some cases than in others. This question can only be answered completely by those who have had experience of different industries.

2. *Discuss the various methods by which attempts have been made to render more peaceable the settlement of wages.*

CHAPTER XXII

TAXATION

Taxes.—Governments must raise much of the revenue that they need by means of taxes. A tax may be defined as *a compulsory contribution made to Government which is not a payment for a specific service rendered.* Thus the penny charged by Government for carrying a letter is not a tax; but the charge made for a dog-licence is a tax.

Taxes are *direct* or *indirect.* A *direct tax* is a tax collected from the person upon whom the burden is intended to fall. Thus an income tax is a direct tax. An *indirect tax* is a tax which is not collected from the person upon whom the burden is intended to fall. Thus the tax on tobacco is collected from importers of tobacco, but it is not intended that they should pay it out of their incomes. They naturally transfer the tax to their customers by charging them more for tobacco.

The Problem of Incidence.—It is usual to say that the *impact* of a tax is upon the persons who

pay first, while its *incidence* is upon the persons who ultimately suffer. Thus, in the example given above, the impact of the English import duty on tobacco is upon the English importers of tobacco, but its incidence is upon the people who consume the taxed tobacco. The process by which the burden of a tax is transferred from one person to another is called the process of *shifting* of taxes.

Some people speak of the shifting of taxes as if, in each case, a particular payment were passed on from person to person, until some individual was reached who could not pass it on to anybody else. Thus, a tax of a penny a pound, say, is placed on soap in some country, and the question is asked, Who pay the pennies on the pounds of soap consumed in that country ?

This is far too simple a way of stating the problem of incidence. Take the example given, and suppose that soap is not imported. The Government will raise a penny from each pound of soap consumed in the country; but the loss inflicted upon the tax-payers may be greater or less than the sum received by the Government. If the incidence of this tax is on the ultimate purchasers of soap, they pay what the Government gets; but they may be involved in contingent gains or losses, which must be deducted from, or added to, this payment. If, in consequence of the diminished consumption

of soap (brought about by the tax), the cost of production of soap falls, the tax-payers make a contingent gain. But, if the effect of diminished consumption is the opposite, they suffer a contingent loss.

Again, among the losses inflicted by the soap tax, we must certainly reckon the damage done to those who, as it is said, 'escape' the tax, or some part of it, by giving up the use of the taxed article, wholly or partially. To give up consuming what we like, and substitute for it what we desire less, is not a matter of indifference.

So it is not exactly correct to speak of the incidence of a tax. What we should say is 'the incidence of the net burden imposed by a tax.' However, the shorter phrase is in common use and serves to save words.

Incidence of Taxes on Commodities, Income, and Bequests.—We shall now consider the incidence of taxes of certain well-known kinds, noticing ultimate effects only.

The incidence of *taxes on commodities* is, broadly speaking, upon the people who consume them. The manufacturer of a taxed commodity naturally reckons the tax as a part of his expenses of producing and selling; and there is obviously no more reason for him to pay the tax out of his own pocket than for him to pay the cost of his material, or the

wages of his labour, out of his own pocket. In settling the price at which he can sell, he naturally takes into account all the expenses to which he is put in producing and selling.

Taxes upon imported goods are called *import duties*, and taxes upon exported goods are called *export duties*. In qualification of what has been said above, it must be remarked that the incidence of these raises somewhat complicated issues, when they are designed to protect or encourage home industries. These issues, however, cannot be entered into here.

The incidence of *income taxes*, as has already been hinted, is upon the people upon whom they are imposed. It must be so, since there are no means by which a person can pass on the burden of his income tax to somebody else.

If, however, an income tax places especially heavy charges on particular trades or professions, the extra charges will be shifted. If, for instance, carpenters are taxed at a specially high rate, while bricklayers, plumbers, and gardeners are let off with a low rate, the trade of carpentering will at once be made relatively less attractive than bricklaying, plumbing, and gardening. Perhaps only a few carpenters will forsake their calling in consequence; but, certainly, the numbers of the next generation brought up as carpenters will be less than

before. Hence, ultimately, the supply of carpenters will sink relatively, and the price paid for their work will be bound to rise. Therefore, the effects of the tax will be shifted from the carpenters on to the public who employ carpenters.

The incidence of all duties on the transference of property at death is similar to the incidence of income taxes. If a person insures, or saves, so as to provide for death duties, their incidence is upon him. If he does not, the incidence is nowhere, unless upon beneficiaries; and, to be quite accurate, we can scarcely say that beneficiaries are deprived of what they never possessed.

Incidence of Taxes connected with Land.—*Taxes on land proportional to its rental value* fall on landlords, so far as the rent is in no degree a payment for capital expended in improving the land. This conclusion follows from the law of rent. For rent is (or tends to be) the most which the tenant will pay for the land. Rather than pay a higher rent, he would give up the land. So, rather than pay the tax (which from his point of view may be regarded as an addition to his rent), he would give up the land. Consequently the landlord must pay the tax. If the tax is collected from the tenant, the rent paid by him will so fall eventually that he is left in the same position as before.

But, so far as the tax on land proportional to

rental is a tax on the income of capital invested in improving the land, it is to be regarded as an addition to the cost of producing things from the land. Consequently it falls ultimately on the consumers of the land's produce. For capital would not continue to be invested to the same extent in improving land, if its earnings were reduced.

From this demonstration the incidence of *rates* can be inferred. Rates are charges imposed by local authorities on the occupiers of property in proportion to the rental value of the property. If the property is a house, the rate is shared by the occupier of the house and the owner of the land, roughly in the proportion of the rent of the building and the rent of the site, or what they would be were they paid separately. If the property is used for business purposes, the occupier's share is, of course, passed on to his customers.

A tax on land of a fixed amount per acre, regardless of the value of the land, leads to different results. On the marginal land (which bears no rent) the tax must be added to the cost of production, on the principles already laid down. So it is shifted to consumers in the form of higher prices for the produce of land. These higher prices would cause the money value of the yield of other land to rise. So, in all probability, the money rent of all land above the margin would be increased.

The principles involved in this discussion, relating to the taxation of land, can be applied to other natural resources such as mines and fisheries.

Principles of Taxation.—It is commonly agreed at the present time that an equitable scheme of taxation should involve people in about the same proportional sacrifice. Also it is commonly agreed that the wealthy should, therefore, be taxed at a higher rate than the poor.

A graded system of taxation, under which the well-to-do pay at a higher rate than the poor, and the rich at a higher rate than the well-to-do and so on, is termed *progressive*. The principle of progression is recognized, within limits, in the English income tax. It must be noted that, when the principle is accepted, it is not easy to say what the just rate of progression should be, and where, if anywhere, it should end.

Above, in this section, we have been considering whether any sound *principle of equity* in taxation can be laid down. We may next consider some other principles of taxation which are commonly recognized. *The principle of economy* is one of these. It declares that, as far as possible, taxes should be chosen (1) the cost of collection of which is small in proportion to their proceeds, and (2) the loss occasioned by which to the country is small in proportion to their yield.

From the second clause of this principle; it may be inferred that it is undesirable to impose a tax on things which would largely go out of use if their price were raised (unless, of course, it is desirable to check their consumption). This is so, because people who ceased to use the things would be inconvenienced, while, nevertheless, the Government would get nothing from these people.

It may also be inferred that it is undesirable to tax things the cost per unit of producing which is greater when smaller supplies are produced. For taxing such things means throwing away the economies caused by producing the larger quantity.

The principle of convenience is closely related to the principle of economy; and may, indeed, be regarded as included in it. It advises that, as far as possible, taxes should be so selected, and their collection so arranged, that the tax-payers are put to the minimum of inconvenience.

Questions (with Hints for Solution)

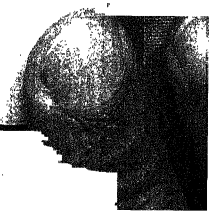
1. *Write notes upon the following: Direct Taxation, Indirect Taxation, Progressive Taxation, Shifting of Taxes.*

2. *Trace the incidence of rates on dwelling houses.*

It should be shown that the rent of a dwelling house is, in part, an annual payment to remunerate the builder of the house, and, in part, an annual payment for the land upon

which the house is built. The latter portion of the payment is rent in the economic sense. The incidence of this should be shown by means of the argument used on page 159. The incidence of the other portion follows the rules laid down as regards the taxation of commodities on pages 157–8.

3. *Enunciate and illustrate the principle of economy in taxation.*



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